Social Innovation Education

Responsible Learning in Communities of Practice

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Summary

The challenges of today's globalized world are manifold. This relates to challenges to overcome political and social crises around the globe. Solutions to these challenges are urgently needed, more precisely social innovations that help solve these complex global problems. Universities and educational institutions provide places where people can learn to create solutions and social innovations. Future generations need decision-making and problem-solving skills to be able to shape constant change. They also require the skills to work with people of different cultures and religions, to cooperate and to consider different perspectives in their daily work. Therefore students, teachers, lecturers, and researchers alike must understand how they can change and improve the world. They need to learn how to analyse and research social problems and how to create solutions in an entrepreneurial way. Teachers should learn how to design learning programmes or develop holistic learning systems. Finally, they must understand what competencies they and their students need to do this.

In this globalized world, universities and educational institutions have a special responsibility to develop and offer learning programmes that help meet global and local challenges, and to do so together with stakeholders from society, politics, and business at both national and international levels.

This dissertation therefore addresses the nascent field of social innovation education. It examines the field mainly from the perspective of economics and business education literature with its ramifications in various social science disciplines. It contributes to social entrepreneurship education and its interfaces with global citizenship education, education for sustainable development and management education in general. In addition, social, curricular, and extracurricular learning settings in communities of practice, which include (volunteer) engagement in initiatives, social start-up teams and project teams, serve as the central object of inquiry in this work.

The first paper (Chapter 1) asks how a holistic learning system for social innovation education can be designed and anchored institutionally. It describes

the World Citizen School model developed at the Weltethos Institute[1] at the University of Tübingen, which identifies and systematically reflects on the various constitutional aspects of a holistic learning system.

The second paper (Chapter 2) examines the principles according to which social-innovative teaching and learning settings can be designed. Using the design-based research approach as a method for the development of the learning design "social innovation camp", the study describes the theoretical foundations, the process, and their practical relevance on the basis of the inquiry-based learning approach.

The third paper investigates what (social) entrepreneurial competencies engaged students develop or can develop through their volunteering (Chapter 3). The subjects of this study are engaged students from different student initiatives and their "communities of practice" in which they engage with different topics and activities. In total, more than 1000 engaged and non-engaged students from 13 different universities were interviewed.

The results of the three studies, their strengths and limitations are discussed and reflected on in the context of the young concept of critical entrepreneurship education and critical pedagogy. Finally, practical implications for the further development of social innovation education are formulated.

The dissertation contributes on an institutional and didactic level, as well as to the discussion about the transfer function and third mission on a higher education policy and socio-political level of the young concept.

All studies were developed within an explorative approach, due to the young concept of social innovation education. The starting point for all considerations and questions arose from the practical implementation and development of the "World Citizen School" model, which began in 2013 at the Weltethos Institute of the University of Tübingen as a "social innovation school" and whose formats have since been tested at other universities. Both the results and the approach are closely linked to the tradition of pragmatism.

[1] The Global Ethic Project goes back to Küng (1998). 'Weltethos' is the German name for Global Ethic after which the Weltethos Institute and the Weltethos Foundation, which Küng co-founded, are named.

Zusammenfassung

Die Herausforderungen der globalisierten Welt von heute sind vielfältig. Dies betrifft die Herausforderungen bei der Bewältigung nachhaltiger, politischer und sozialer Krisen rund um den Globus.
Es werden Lösungen für diese Herausforderungen benötigt, im engeren Sinn soziale Innovationen, die zur Lösung dieser globalen sozialen und komplexen Probleme beitragen.
Universitäten und Bildungseinrichtungen sind Orte, an denen Menschen lernen können, Lösungen und soziale Innovationen zu schaffen und zu stärken.
Zukünftige Generationen benötigen Entscheidungs- und Problemlösungskompetenz, um den ständigen Wandel gestalten zu können. Sie brauchen die Fähigkeit, mit Menschen verschiedenster Kulturen und Religionen zusammenzuarbeiten, zu kooperieren und unterschiedlichste Perspektiven in ihrer täglichen Arbeit berücksichtigen zu können. Studierende, Lehrende und Forscher*innen müssen gleichermaßen verstehen, wie sie die Welt verändern und verbessern können und lernen, wie sie soziale Probleme und gesellschaftliche Herausforderungen analysieren und erforschen und wie sie auf unternehmerische Weise Lösungen entwickeln können. Lehrende benötigen die Fähigkeit Programme konzipieren und ganzheitliche Lernsysteme entwickeln zu können. Sie müssen dafür verstehen, welche Kompetenzen sie selbst als auch ihre Studierende benötigen.
In einer globalisierten Welt haben Hochschulen und Bildungseinrichtungen eine besondere Verantwortung Lernprogramme gemeinsam mit Akteuren aus Gesellschaft, Politik und Wirtschaft auf nationaler und internationaler Ebene zu entwickeln, die dabei helfen, globale und lokale gleichermaßen Herausforderungen zu bewältigen.
Die vorliegende Dissertation befasst sich daher mit dem noch jungen Feld der Social Innovation Education. Sie untersucht das Feld vor allem aus der Perspektive wirtschaftswissenschaftlicher und wirtschaftspädagogischer Literatur mit ihren Verästelungen in verschiedene sozialwissenschaftliche Disziplinen. Sie leistet einen Beitrag zum Feld der Social Entrepreneurship Education und deren Schnittstellen zur Global Citizenship Education, zur Bildung für nachhaltige Entwicklung und zur Managementausbildung im Allgemeinen. Im

Besonderen sind soziale, curriculare und außercurriculare Lernszenarien in Praxisgemeinschaften z.B. in Form von (ehrenamtlichem) Engagement in Initiativen, Social Startup Teams und Projektteams, zentraler Untersuchungsgegenstand dieser Arbeit.

Der erste Beitrag (Kapitel 2) geht der Frage nach, wie ein ganzheitliches Lernsystem für soziale Innovationsbildung gestaltet und institutionell verankert werden kann. Dazu wird das am Weltethos-Institut der Universität Tübingen entwickelte Modell der „World Citizen School“ als Fallbeispiel beschrieben, das die verschiedenen konstitutiven Aspekte eines ganzheitlichen Lernsystems identifiziert und reflektiert.

Im zweiten Beitrag (Kapitel 3) werden die Prinzipien untersucht, nach denen sozial-innovative Lehr- und Lernsettings gestaltet werden können. Anhand des designbasierten Forschungsansatzes zur Entwicklung des Lerndesigns "Social Innovation Camp" werden die theoretischen Grundlagen, der Prozess und die praktische Relevanz auf der Basis des Forschenden Lernens beschrieben.

Im dritten Beitrag (Kapitel 4) wird untersucht, welche (sozial-) unternehmerischen Kompetenzen engagierte Studierende durch ihr freiwilliges Engagement entwickeln bzw. entwickeln können. Gegenstand dieser Studie sind engagierte Studierende aus verschiedenen studentischen Initiativen und deren „Praxisgemeinschaften", in denen sie sich mit unterschiedlichen Themen und Aktivitäten beschäftigen. Insgesamt wurden dafür mehr als 1000 engagierte und nicht-engagierte Studierende aus 13 verschiedenen Universitäten befragt.

Die Ergebnisse der drei Studien, ihre Stärken und Grenzen werden im Kontext des Konzepts der kritischen Entrepreneurship Education und kritischer Pädagogik diskutiert und reflektiert. Abschließend werden praktische Implikationen für die weitere Entwicklung der sozialen Innovationsbildung formuliert. Die Dissertation leistet einen Beitrag auf institutioneller und didaktischer Ebene sowie zur Diskussion um die Transferfunktion und dritte Mission des jungen Konzepts auf hochschulpolitischer und gesellschaftspolitischer Ebene.

Aufgrund des jungen Konzepts der sozialen Innovationsbildung wurden alle drei Studien explorativ entwickelt. Ausgangspunkt aller Überlegungen und Fragestellungen war die praktische Umsetzung und Weiterentwicklung des World Citizen School-Modells, das seit 2013 am Weltethos-Institut der Universität

Tübingen als *Social Innovation School* entwickelt wurde und dessen Formate auch an anderen Hochschulen erprobt werden. Sowohl die Ergebnisse als auch die generelle Herangehensweise in dieser Forschungsarbeit stehen in der Tradition des Pragmatismus.

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1 Introduction and Theoretical Framework

1.1 Relevance of Social Innovation Education and Research Questions

For several decades now, the world has been changing at an ever-faster pace. Simultaneously, the complexity of global social, political and economic challenges has been increasing. Among the biggest problems of our time are environmental degradation and climate change and the associated problems of water scarcity or food insecurity. On the political level, there are the states of war, civil wars, genocides, acts of terrorism, organized violence, and the threat of weapons of mass destruction. Furthermore, poverty, which is widespread in many parts of the world and causes serious personal harm or threatens people's physical or mental health, is one of the biggest problems. Last but not least, the worldwide Covid-19 crisis has only made it more clear in what an interconnected and globalized world we live in as humanity and what impacts, interdependencies and cause-effect relationships exist between different nations and cultures around the world.

In today's globalized world, not only technological but increasingly social innovations and solutions are needed to meet local and global challenges alike.

Universities and educational institutions are expected to foster innovation and create knowledge for society to solve these problems. Universities are increasingly becoming aware of their societal mission. Accordingly, the so-called "third mission", which explicitly emphasizes the contribution to society and transfer in addition to research and teaching, is receiving increasing attention (Compagnucci & Spigarelli, 2020). Helix approaches serve as concepts for the development of innovative ecosystems at universities that help to address the outlined problems through innovative solutions in interaction with different actors and industries.

The following section briefly outlines the development of the Helix concept and the understanding of universities as (social) innovation systems.

1.1.1 Universities as (Social) Innovation Systems

Less than two decades ago, the concept of the “triple helix” dominated. This concept describes the role of the university as a knowledge production site in the relationship between universities, industry, and academia and focuses on the knowledge economy (Etzkowitz & Leydesdorff, 2000). This rather reductionist understanding has increasingly given way to a more complex and realistic understanding that takes more diverse actors and industries into account. The "quadruple helix" includes a fourth dimension that additionally considers the role of the media environment and civil society in knowledge production; promoting the idea of knowledge democracy and knowledge society. This helix particularly emphasizes the fact that an innovation ecosystem requires a particularly large diversity of agents, actors, and organizations. Moreover, it emphasizes that knowledge production is equally accomplished in a wide variety of ways and by a wide variety of actors and is not traditionally left to the sciences alone (Carayannis & Campbell, 2009; Wallin, 2010). Finally, Carayannis et al. (2012) added another dimension, the "ecological environment of society". This fifth dimension of the quintuple helix emphasizes the importance of a holistic perspective for innovation systems to sensitize knowledge development to ecological concerns and sustainable development.

In recent years, early researchers have set out to determine ecosystems for social innovation. Typically, they refer to the quadruple/quintuple helixes (Pel et al., 2020). In this context, Sgaragli (2014) emphasizes the interaction of the helix actors and the complexity in innovation systems. The quadruple/quintuple helix model plays an important role in fostering the shift from a purely technological view of innovations to social innovations (Morawska-Jancelewicz, 2021). Pel et al. (2020) particularly emphasize the empowering role of network constellations for social innovation. In addition to describing the conditions for local social innovation systems, they argue that global connectivity and the role of international social innovation initiatives in innovation systems must be considered. Ecosystems should include both local social innovation initiatives and their transnational networks to create a discursive resonant space with local and global society (Pel et al., 2020).

1.1.2 Transformative Learning Approaches and Social Innovation Education

Following the third mission and the Helix concepts, the question arises of developing social innovation systems as learning spaces that create local and global resonance spaces alike. This includes the question of how value-orientated, social and socially innovative learning can be promoted for a sustainable and peaceful global society.

Both in academic discourse and in practice, different concepts and programmes are associated with the idea of contributing to (global) society and having a social impact (Howaldt et al., 2018; Jarvis, 2007). For example, the European Union's (EU) Responsible Research & Innovation, UNESCO's Education for Sustainable Development and the United Nations' (UN) Global Citizenship Education initiatives consider different aspects of sustainable or social innovation, social entrepreneurship, and citizen science (de Haan, 2006; Irwin, 2002; Pigozzi, 2006; Smith & Woodworth, 2012; United Nations, 2019). Different learning approaches aim to foster critical thinking and creative skills and design competencies (Banks, 2014; de Haan, 2006; Joyce & Paquin, 2016; Pigozzi, 2006). Examples include approaches such as active citizenship education (Geier, 2018; Keser et al., 2011), transformative citizen education (Banks, 2014; Johnson & Morris, 2010), critical citizenship education (Andreotti, 2014), critical entrepreneurship education (Berglund & Verduyn, 2018), and education for sustainable development (de Haan, 2006; Mogensen & Schnack, 2010; Vare & Scott, 2007). Learning programmes that explicitly address technological and/or social innovation are typically the subject of (social) entrepreneurship education or (social) innovation education (Cao & Zhou, 2018; Ribeiro et al., 2018).

This dissertation addresses issues and approaches to learning from the perspective of the young concept of social innovation education. This concept overlaps largely with the mentioned approaches. At the same time, it has been developing as an independent learning approach for several years, parallel to the increasing discourse on social innovation and social entrepreneurship (see also 1.2.2; Alden-Rivers, Armellini, Maxwell, Allen, & Durkin, 2015). Social innovation and social entrepreneurship are sometimes understood as closely related concepts or even as equivalents, although the concepts have historically been preceded by different disciplinary and sectoral development paths (see also

section 1.2.; Cunha et al., 2015). Numerous definitions of social innovation can be found in the literature and a uniform definition has not yet been found (Eichler & Schwarz, 2019). The systematic literature review by Eichler & Schwarz (2019) encompasses five aspects that are important in the discourse around social innovation: (1) social need, (2) innovative element, (3) implementation and execution, (4) improvement, (5) relationships and collaborations. A widely used definition, which includes these aspects and which forms the basis of this dissertation, is that of Murray et al. (2010). According to the authors, social innovations are “new solutions (products, services, models, markets, processes, etc.) that simultaneously meet a social need (more effectively than existing solutions) and lead to new or improved capabilities and relationships and better use of assets and resources. In other words, social innovations are both good for society and enhance society’s capacity to act” (R. Murray et al., 2010, p. 3).

From the end of the 2010s, research on social entrepreneurship education or social innovation education has increased significantly (Alden-Rivers, Armellini, Maxwell, et al., 2015; García-González & Ramírez-Montoya, 2021; Igwe et al., 2021; Kalemaki et al., 2019; Mengel & Tantawy, 2018; Milligan, 2019; Sarıkaya & Coşkun, 2015).

1.1.3 Research Gaps and Overview of the Dissertation

There is still a lack of empirical and theoretical research on how social innovation can be promoted in formal and informal contexts, such as through social entrepreneurship or social innovation education. On an institutional level, the development of social innovation labs as participatory places for creating and strengthening social innovations is being discussed (Edwards-Schachter et al.,2012; Marcelloni, 2019; Wascher et al., 2018). So far, learning theory considerations and the student environment at universities have hardly been taken into account. Exceptions include Magalhães et al. (2020), who draw on Dewey’s pragmatist theory of learning in their analysis of a social innovation lab, and Castro-Spila (2018) whose case study focuses on a university social innovation lab that serves students to solve social problems.

On the didactic level, various new and existing approaches are discussed in the literature. These include experiential forms of teaching such as service learning

(Mueller et al., 2015) and start-up-focused seminars designed to foster social entrepreneurial skills (Amundam, 2019; García-González & Ramírez-Montoya, 2021; Hockerts, 2018; Thomsen et al., 2021). At the level of students' personal development, there are a few initial studies that explore the question of what knowledge, skills, and attitudes can or should be developed in the field of social entrepreneurship or social innovation on and how the development process can be designed (Alden-Rivers, Armellini, & Nie, 2015; García-González & Ramírez-Montoya, 2020; Kalemaki et al., 2019; Mir Shahid & Alarifi, 2021). Few empirical studies, however, have examined social-entrepreneurial competencies in students (García-González & Ramírez-Montoya, 2020; Hockerts, 2018).

Accordingly, the individual papers of the dissertation focus on the level of the institution (Chapter 2), didactics (Chapter 3) and personal competence development (Chapter 4). They contribute to the still young field of social innovation education and social entrepreneurship education, respectively, and their interfaces with global citizenship education, education for sustainable development, and management education in general. The papers add to the literature primarily by illuminating co-curricular and extracurricular learning spaces and associated skill development, and by helping to fill the gap in theoretically informed learning designs. It examines social innovation education mainly from an economics and business education literature.

The first article (Chapter 2) contributes to the literature about the development of social innovation ecosystems for students. It investigates how a holistic learning system for social innovation education can be designed and anchored institutionally. To do so, the paper describes the World Citizen School model developed at the Weltethos Institute at the University of Tübingen, which identifies and systematically reflects on the various constitutional aspects of a holistic learning system. The model was developed as a learning organization. In addition, it offers points of contact for the self-organization of business or civil society organizations alike and promotes the co-creative exchange of the most diverse actors at universities and beyond in the sense of the various Helix concepts. The development of the model led to further questions and the subsequent studies.

The second article (Chapter 3) deals with didactics for socially innovative learning. It examines theoretical foundations and principles according to which

social-innovative teaching and learning settings can be designed. Using the design-based research approach as a method for the development of the learning design “social innovation camp”, the study describes the theoretical foundations and their practical relevance through an inquiry-based learning approach. As a result, it highlights the importance of the process of inquiry-based learning for further theoretical justification of social innovation education.

The third article (Chapter 4) describes an empirical competence study of students. This paper investigates what (social) entrepreneurial competencies engaged students develop or can develop through volunteering. The subject of this study is engaged students from different student initiatives and their “communities of practice”. In total, more than 1000 engaged and non-engaged students from 13 different universities were interviewed. The study provides indications of where competencies for innovative action can already be expected among students and which ones can be fostered by socially innovative learning programmes and forms of learning.

The dissertation contributes on an institutional and didactic level as well as to the discussion about the transfer function and third mission on a higher education policy and socio-political level of the young concept. Thus, the dissertation is dedicated to the overarching research question of contouring the young concept of social innovation education with its associated theories and practical implications in the context of higher education.To classify and theoretically frame the dissertation in the academic discourse, different thematic approaches and pathways around the concept are outlined in the following (section 1.2). Drawing on the discourse of critical pedagogy and critical entrepreneurship education, the Capability Approach is introduced as an analytical framework for SIE (section 1.3.). The discursive introduction points to the importance of social learning settings and learning through engagement in groups, teams, and initiatives for SIE, which are the focus of the three studies in different ways. To classify these learning settings, section 1.4. presents a model for didactic reflection for SIE learning scenarios, which is not explicitly the subject of the three studies, but at the same time is intended to serve the reader of this dissertation and (future) teachers as a didactic frame for reflection. Finally, section 1.5. summarizes the theories mentioned in the introductory sections in the context of the tension

between normative-transformative versus descriptive understandings of economics.

1.2 Different Approaches around Social Innovation Education

1.2.1 From Entrepreneurship to Social Entrepreneurship

An important root and development path of the social innovation and social entrepreneurship discourse can be found in the entrepreneurship discourse. The history of entrepreneurship as an intellectual field dates back to the 18th century. It has only developed, however, as a discipline and research field since the 1980s. Entrepreneurship was and still is a subject of research not only in management and economics but has also been taken up by various disciplines in the social sciences, such as psychology and sociology (Landström, 2014). The various disciplinary approaches have inevitably led to a variety of understandings, definitions, and theories (Prince et al., 2021).

Historically, entrepreneurship has been primarily a phenomenon of creation of economic value, profits, and growth. This narrow view has been shaped, for example, by the Austrian School and by Schumpeter's theory, which characterizes the entrepreneur and his actions as creative destruction. At the same time, however, Schumpeter describes the entrepreneur as creative and imaginative, constantly driving economic and technical progress through new ideas and the use of new production methods, techniques and processing opportunities (Aghion, 2018). In doing so, he also paved the way for a broader understanding of the entrepreneurial process (Prince et al., 2021). In the last decades, some groups of researchers have started to broaden the discourse. Many of these scholars do not understand entrepreneurship as being exclusively linked to economic value creation, the sale of products or services, or financial sustainability. Nor do they see these as a necessary condition for the classification of entrepreneurial activity. In their analyses, they refer also to a broader range of value creation, such as social value. These include social entrepreneurship or public entrepreneurship (Ebrashi, 2013; Landström, 2014). In contrast to more narrowly defined, complex definitions of entrepreneurship, Prince et al. (2021) attempt to reduce the phenomenon of entrepreneurship to its

essentials. They understand entrepreneurship merely as an "act of generating and developing an idea for validation" (p.29). Without assessing at this point whether the move toward a broader understanding of the research field is beneficial or counterproductive, this development highlights the relevance for future discourses on entrepreneurship that include other disciplines besides economics.

Similarly, entrepreneurship education and its many approaches have evolved over the past decades. Entrepreneurship education has evolved since the 1980s analogously to the evolution of the academic concept of entrepreneurship. The scientific entrepreneurship education deals in particular with questions of what content should be taught, with questions of teaching methodology, as well as increasingly with questions of attitude and personal values as the starting point of entrepreneurship education and their change after the didactic intervention (Hägg & Gabrielsson, 2019; Kakouris & Liargovas, 2021).

These questions can also help teachers in their teaching practice. The modes of "teaching about entrepreneurship", "teaching for entrepreneurship", and "teaching through entrepreneurship" serve as useful distinctions and guidance in developing learning programmes (Kakouris & Liargovas, 2021; Lackeus, 2015; Middleton & Donnellon, 2014).

In the 1980s, entrepreneurship teaching dominated as a content-based and theoretical approach aimed at providing a general understanding of the phenomenon. Entrepreneurship teaching was mainly still taught according to the model of traditional teacher-centred knowledge transfer. This began to change in the 1990s with the first PhDs in entrepreneurship. Gradually, experience-based teaching methods came to the fore and, with this, the teaching "for" and "through" entrepreneurship (Hägg & Gabrielsson, 2019). Beginning in the 1990s, teaching "for" entrepreneurship advanced as a career-focused approach aimed at providing aspiring entrepreneurs with the necessary knowledge and skills (Hägg & Gabrielsson, 2019; Lackeus, 2015).

In the early 2000s, experiential learning settings of the "through" mode became popular. This mode of learning primarily refers to a process- and experience-based approach in which students go through an entrepreneurial learning process (Hägg & Gabrielsson, 2019; Lackeus, 2015).

Thus, pedagogically, there has been a shift from the classic teacher-centred mode to student-centred and constructivist learning. This shift toward more humanistic learning has been evident not only in entrepreneurship education, but in the pedagogy of many disciplines (Aloni, 2011; Kakouris & Liargovas, 2021).

In the context of business education and entrepreneurship education, humanistic thinking means putting human beings at the centre as opposed to a mechanistic ideal that often underlies economics (Melé, 2016; Pirson et al.,2019). It means considering in the classroom ethical values such as justice, humanity, peace, personal autonomy, authenticity, critical thinking, creative thinking, respect for persons, caring, democracy and, last but not least, respect for a global ethic of human rights, multiculturalism and environmental protection (Aloni, 2011; Küng, 1998).

The spectrum of entrepreneurial teaching methods today is broad. These methods include the creation of business plans, case studies, guest lectures, simulations, as well as project-based learning settings (e.g., in existing companies). They also include the creation of new ventures and start-ups, or project- and problem-based learning settings of all kinds that support students to take responsibility and develop their entrepreneurial life skills and abilities (Lackeus, 2015; Mueller & Anderson, 2014).

This broad spectrum of teaching methods and broad understanding of entrepreneurship has also been promoted politically for some years. According to the definition of the European Commission, entrepreneurship education (EE) comprises "all educational activities that seek to prepare people to be responsible, enterprising individuals who have the skills, knowledge and attitudes needed to prepare them to achieve the goals they set for themselves to live a fulfilled life" (Curth, Chatzichristou, Devaux, & Allinson, 2015, p. 3). Furthermore, the EU Commission (2007) emphasizes in its Competence Framework for Lifelong Learning the "Sense of initiative and entrepreneurship [that] refers to an individual’s ability to turn ideas into action. This supports individuals, not only in their everyday lives at home and in society, but also in the workplace [...], and is a foundation for more specific skills and knowledge needed by those establishing or contributing to social or commercial activity." (European Commission, 2007, p. 11). This broad definition includes not only for-profit business models, but also socially orientated and non-profit activities (Mars & Garrison, 2009). This helps to

understand overlaps with the (academic) discourses around social innovation and social entrepreneurship.

The term social entrepreneurship was first used in the 1970s in the context of sociology of social movements to describe managerial skills needed to solve social problems and business problems alike. The term became increasingly known in the 1980s with the founding of Ashoka, the first funding organization for social entrepreneurship (Ebrashi, 2013). Over the years, Ashoka and other funding organizations like the Schwab Foundation, Aspen Institute and the Skoll Foundation helped to make the concept known worldwide (Lepoutre et al., 2013). The concept has evolved as part of the entrepreneurship literature and has since entered both entrepreneurial practice and academic discussion and teaching (Farinha et al., 2020). A widely used definition of social entrepreneurship is that of Peredo & McLean (2006). According to the authors, social entrepreneurship "is exercised where some person or persons (1) aim either exclusively or in some prominent way to create social value of some kind and pursue that goal through some combination of (2) recognizing and exploiting opportunities to create that value, (3) employing innovation, (4) tolerating risk and (5) declining to accept limitations in available resources" (p 1).

Until a few years ago, there was almost no literature on social entrepreneurship education. In recent years, a significant increase can be observed. Teaching methodologies of social entrepreneurship education share common elements with those of entrepreneurship education (García-González & Ramírez-Montoya, 2021). Similar to the development in entrepreneurship education, experiential learning settings are at the forefront in social entrepreneurship education, although the spectrum of teaching methods is also broad (Amundam, 2019; Brock & Steiner, 2009; García-González & Ramírez-Montoya, 2021; Kim et al., 2020; Kwong et al., 2012; Mengel & Tantawy, 2018; Pache & Chowdhury, 2012; Parris & McInnis-Bowers, 2017; Plaskoff, 2012; Smith & Woodworth, 2012; Tracey, 2012).

Key differences from classic entrepreneurship typically include creating social value, pursuing a social mission, and solving social problems as opposed to purely creating economic value, pursuing profit interests, and satisfying customer demand through products and services. In the definitions around social entrepreneurship, economic values, profits and the sale of products and services

are by no means excluded but typically subordinated to the social mission and social value creation (Dacin et al., 2011; Farinha et al., 2020; Lepoutre et al., 2013).

1.2.2 From Social Entrepreneurship to Social Innovation

Social entrepreneurship is a research area that intersects with a number of fields, including entrepreneurial studies, social innovation, and non-profit management (Dacin et al., 2011). Researchers have different views on the extent of overlap between social innovation and social entrepreneurship. Some see social innovation as an integral and exclusive aspect of social entrepreneurship and social intrapreneurship. On the other hand, some note that social innovation is often used interchangeably with the terms social entrepreneurship and social enterprise (Eichler & Schwarz, 2019). Many studies treat social innovation and social entrepreneurship as intersectional concepts that share many commonalities but have different origins and strands of discourse (Dacin et al., 2011; Eichler & Schwarz, 2019). The concepts overlap significantly in the process of identifying problem-solving opportunities for unmet social needs (Phillips et al., 2015). Both terms—social innovation and social entrepreneurship—are still imprecisely defined and used (Alden-Rivers, Armellini, & Nie, 2015). As a distinguishing criterion, many researchers emphasize that the term social innovation refers primarily to positive social change. From this perspective, social entrepreneurs and social enterprises are to be understood as one actor among many who jointly bring about social change. In addition, some researcher emphasizes that social innovation can be carried out by many different actors such as governments, non-profit organizations or individuals (Eichler & Schwarz, 2019; Montgomery et al., 2012). These researchers also refer to the role of social and citizen movements in the diffusion of social innovation (Henderson, 1993; Ziegler, Molnár, Chiappero-Martinetti, & von Jacobi, 2017). Social innovations are empirical-analytically often described as social practices (Howaldt & Schwarz, 2010). At the same time, normative demands are typically made on the concept. That is, social innovations should bring about what is ethically good and socially desirable. Specifically, Ziegler (2017) emphasizes the "social" and "collaborative" element and describes social innovation as a “collaborative concept”. Some

authors call such an approach the communitarian model, through which social innovations are developed by collective action and by a community pursuing the common goal of solving a social problem (Unceta Satrustegui et al., 2017). Others call it an organizational model, which describes the emergence of social innovations as participatory and sustainable practices of diverse organizations (Castro-Spila, 2018). Both models express that social innovations are not generated by individual actors or social enterprises alone. These four aspects (empirical-analytically, normative, communitarian/collaborative, organizational) are of importance in the analysis of social innovations (see also Howaldt & Schwarz, 2017). Finally, depending on the actor, (world) region, or disciplinary approach, different aspects are emphasized when describing social innovations (Howaldt et al., 2018).

To further establish the distinction between social entrepreneurship and social innovation, two dominant schools of thought on social entrepreneurship are helpful. In the tradition of the “earned income school of thought”, the commercial aspects are emphasized and typically, in addition to the social mission, the sale of products and services is emphasized (Defourny & Nyssens, 2010). This includes both commercially active non-profits in the sense of the so-called "commercial non-profit approach" and for-profit organizations that primarily pursue a social mission in the sense of the “mission-driven business approach” (Defourny & Nyssens, 2010).

Typical perspectives for social entrepreneurship are the compensatory function according to which social enterprises provide products and services that the economic and public sectors are not able to provide (Newey, 2018). This is often accompanied by the subordination of social entrepreneurial activities to economic principles (e.g., profit-making), which promise financial sustainability (ibid). The second tradition is referred to as the "social innovation school of thought." This focuses on social entrepreneurs as changemakers. Such changemakers implement new ideas and create, for example, new (quality of) services, develop new production methods, new organizational forms, or new markets. In this tradition, social entrepreneurship is more about social impact and systemic change than about income (Defourny & Nyssens, 2010; Wittmayer et al., 2019). In this regard, social entrepreneurship can be understood in its transformative

function. It challenges the status quo of, for example, the global capitalist world and equally tries to bring forth new forms of economic activity (Newey, 2018).
This dissertation follows the tradition of the social innovation school of thought, which includes at the same time the commercial non-profit approach and mission-driven business approach. Therefore, this dissertation uses a broad definition: "Social innovations are new solutions (products, services, models, markets, processes, etc.) that simultaneously meet a social need (more effectively than existing solutions) and lead to new or improved capabilities and relationships and better use of assets and resources. In other words, social innovations are both good for society and enhance society's capacity to act" (Caulier-Grice, Davies, Patrick, & Norman, 2012, p. 42).

1.2.3 From Social Innovation to Social Innovation Education

Approaches to social innovation education (or social entrepreneurship education) serve to design socially innovative learning programmes. These have been discussed little in the literature. As yet, there is a lack of theoretically sound learning designs and systematic empirical research (Kalemaki et al., 2019). In the following, the first approaches discussed in the literature are presented and their significance for the future development of the field is outlined.
The first authors to explicitly address social innovation education and provide initial guidance were Alden-Rivers et al. (2015). The authors define social innovation education (SIE) "as the complex process of developing graduates who aspire to change the world for the better, regardless of career path. These individuals are knowledgeable, socially and ethically responsible, as well as emotionally intelligent innovators, leaders and communicators" (ibid., p.3). The authors developed fourteen changemaker attributes that provide guidance for the formulation and evaluation of competency profiles and learning objectives. These include (among others) empathy skills, critical thinking, action orientation, values-based motivation, and problem solving (ibid; see also Table 1).
Kalemaki et al. (2019) made a further attempt to formulate an initial working definition and competency framework for SIE as part of the EU-funded "NEMESIS - Novel Educational Model Enabling Social Innovation Skills" research project. In contrast to Alden-Rivers et al. the authors particularly emphasize the

aspects of empowerment and civic engagement in order to achieve socially transformative impact. By SIE, Kalemaki et al. (2019) understand "[...] a collaborative and collective learning process for the empowerment and socio/political activation of students to drive social change no matter their professional pathways. SIE builds students' competencies to identify opportunities for social value creation, to form collaborations and build social relationships and take innovative action for a more democratic and sustainable society" (ibid., p. 8). The authors emphasize competencies for collective problem solving, collective efficacy, collaborative planning and democratic decision making, among others (see also Table 1).

While the first definition by Alden-Rivers et al. focuses on the learning individual, the second definition focuses on cooperative and co-creative learning experiences. Both definitions emphasize the procedural aspects of learning and independence from specific career paths and thus support (indirectly) the idea of lifelong learning. The following table (table 1) only serves to capture the similarities and differences of the two selected studies with regard to the discourse and the formulation of social-innovative competences.

Another way to represent the social innovation competencies according to a didactic and procedural logic is demonstrated by the learning outcome framework of Northeastern University (AshokaU, 2019; see Table 1.2). The university uses the knowing, doing, being approach for the development and implementation of their social innovation syllabus (ibid; Kakouris & Liargovas, 2021).

With regard to the learning processes, Castro-Spila (2018) emphasises cooperative learning, problem-based learning, action research or experimental learning as important approaches for SIE.

Kalemaki et al. (2019) emphasize student empowerment as important to SIE. The empowerment process requires the possibility to formulate and pursue their own learning goals and project ideas.

To be able to shape the learning process themselves according to their own knowledge, abilities, interests, values and desires, students need supportive teachers. These teachers, in their self-perception as learning coaches, accompany the students' individual learning journey, provide meaningful scaffolding where necessary and give as much freedom as possible (Fornaciari & Lund Dean, 2014; Mengel et al., 2015).

Table 1.1 Social Innovation Learning Outcomes (Attributes, Competences, Literacies)
Source: Data taken from Alden-Rivers et al. (2015) and Kalemaki et al. (2019)

14 Changemaker Attributes according to Alden-Rivers et al. (2015)	**14 Social Innovation Competences** according to Kalemaki et al. (2019) (NEMESIS)
• Self-Confidence • Perseverance • Internal locus of control • Self-Awareness • Action orientation • Innovation & Creativity • Critical Thinking • Empathy • Reflective • Communication • Emotional Intelligence and Social Intelligence • Problem Solving • Leader • Values-driven	• Vision for a better world • Responsible & Critical Thinking • Empathy • Self-Efficacy • Collective and Creative Problem Solving • Embracing Diversity • Collective Efficacy • Social Resilience • Digital Social Innovation • Take the leap for Value Creation • Using resources well • Social Communication • Reflective Learning • Collaborative planning and democratic decision making

To be able to shape the learning process themselves according to their own knowledge, abilities, interests, values and desires, students need supportive teachers. These teachers, in their self-perception as learning coaches, accompany the students' individual learning journey, provide meaningful scaffolding where necessary and give as much freedom as possible (Fornaciari & Lund Dean, 2014; Mengel et al., 2015).

In particular, cooperative learning processes refer to learning settings in group and team work and the associated communicative negotiation processes of learning and project goals between learners and between learners and teachers (Vettraino & Urzelai, 2021). Ideally, the framework for one's learning success is negotiated through genuine dialogue both among students (e.g., in groups, teams, or duos) and with a learning coach. In this regard, Arn (2017) speaks of a

genuine dialogue between learners and teachers in the context of agile higher education didactics (ibid.).

Table 1.2 Social Innovation Competencies aligned to the Knowing, Doing, Being Approach. Source: Own representation according to Riccio (2018).

Changemaker Learning Outcome Framework (Syllabus: The non-profit sector, philanthropy, and social change at Northeastern University) according to Rebecca Riccio, 2018 in AshokaU (2019, p. 54).			
	Ways of thinking about complexity	Ways of being in relation to oneself & others	Ways of doing
Competencies, Literacies, Attributes	• Systems Thinking • Civic Mindedness • Comfort with Ambiguity • Complex Problem-solving	• Ethical Reasoning • Perspective Taking • Introspection • Empathy • Humility • Active Listening • Cultural Agility • Inclusivity/inclusive action	• Strategic Thinking • Planning • Time Management • Communication • Negotiation • Organization • Collaboration/team work • Decision Making • Networking
	Self-efficacy, Confidence, Leadership		

In addition to the question of the competencies that students (should) develop through socially innovative learning programmes, there is also the question of what competencies and capacities teachers as well as their organizations should be equipped with.

Castro-Spila (2018) mentions, for example, the organizational capacities to experiment, exercise, implement, transfer and evaluate social innovations.

For teams leading social innovation labs, Wascher et al. (2018) suggest a list of competencies, which includes project management, facilitation, mediation, networking, participation, self-organization, intercultural dialogue, evaluation, design, communication and entrepreneurial and systemic thinking.

The preceding remarks have shown in what contexts social innovation is discussed and demonstrated social innovation's young developmental status.

Finally, the question remains open as to what purpose social innovations and social entrepreneurship should serve, that is, what value they create and for whom. This is followed by the question of an analytical framework that can be used to evaluate social innovations, to identify practical and social problems and to guide teachers and students in developing social innovations. These questions are explored in the subsequent sections. For the purpose of critical reflection on the concept, the following consideration of critical pedagogy and the equally young field of critical entrepreneurship education promises further inspiration for development. Furthermore, the explanations serve the classification and the critical reflection of the individual studies of the dissertation.

1.3 Reflection: From Critical Entrepreneurship Education to an Analytical Framework for Social Innovation Education

For the young discourse on SIE, reflexivity is particularly relevant for two aspects. On the didactic level, reflexivity refers to learning on what has been experienced, on personal attitudes and values, and, for example, on how these values and attitudes fit into a holistic humanistic worldview (Lindbergh & Schwartz, 2018; Wettermark et al., 2018). In the scientific discourse it is about the critical reflection of which values and norms such a discipline may or even should impart (Achtenhagen & Johannisson, 2018).

First, clues are offered by the equally young critical entrepreneurship studies and critical entrepreneurship education, which deal with the phenomenon of entrepreneurship including the newer forms such as social entrepreneurship (Berglund & Verduyn, 2018). A key point challenged by critical entrepreneurship studies is an overly narrow view of the phenomenon that disregards multiple perspectives and interpretations.

Entrepreneurship is typically described as a market-based and individualistic phenomenon that leads to business creation and, derivatively, to economic growth and innovation. This view of entrepreneurship is often declared as desirable economic action and unreflectively perceived as generally positive. This circumstance risks obscuring important questions that the fledgling field of critical entrepreneurship studies is asking (Essers et al., 2017).

The criticism of the narrow concept also applies to entrepreneurship education.

Scholars question the "conventional" and "instrumental" view that focuses only on the importance of new venture creation and economic health and vitality, as well as a concept of entrepreneurship that follows only a western world view that is gendered, ethnocentric, and classed (Berglund & Verduijn, 2018). The critical discourse encompasses the respective roles of students and teachers, their distribution of power, learning content and teaching methods. It also considers the concept of the entrepreneurial self as an expression of neoliberalism (Bröckling, 2016; Tunstall, 2018). This is accompanied by a critique of an instrumental view of education as performativity. Knowledge is thus evaluated as to whether it contributes to one's success or failure, as opposed to an understanding of learning for the sake of learning (Ball, 2003; Berglund & Verduijn, 2018).

Critique is also concerned with entrepreneurialism. Entrepreneurship as a pervasive phenomenon that affects all industries and sectors, follows an entrepreneurial imperative at its core and is promoted by a broad understanding of the term is referred to as entrepreneurialism. In this regard, Woods et al. (2007) include social entrepreneurialism, cultural entrepreneurialism and public entrepreneurialism alongside business entrepreneurialism.

Social entrepreneurship is seen by some scholars as a welcome alternative and corrective to classical entrepreneurship, counteracting so-called "dark sides" and undesirable consequences of entrepreneurship (Berglund & Verduyn, 2018; Hota et al., 2019). Some scholars see social entrepreneurs as actors who challenge neoliberalism by ethically creating conditions for responsible freedom for both themselves and for others (Dey & Steyaert, 2016; Dierksmeier, 2019).

The concept is viewed critically particularly when it is subordinated to economic principles. It undermines the own entrepreneurial freedom of social entrepreneurs when it allows market logic to dominate in the area of tension between market logic and social service logic (Bandinelli, 2017; Dey & Steyaert, 2016; Garrow & Hasenfeld, 2014).

In the educational context, the concept is critically discussed when, for example, it is practiced only as individualistic self-fulfilment that sees the "other" merely as a customer and a means to an end, as opposed to an understanding that sees the other(s) as a starting point for changing one's worldview and attitude in a humanistic sense (Wettermark et al., 2018).

1.3.1 Critical Pedagogy

The approach of critical entrepreneurship education is based on the discourses around entrepreneurship education as well as the approach of critical pedagogy. Without going into more detail about the philosophy and approach, the central concerns of critical pedagogy will be outlined here, as the fundamental aspects of this promise to enrich the future discourse on SIE and its practice.

Central to critical pedagogy is the emancipatory interest in greater self-determination. For example, Paulo Freire, one of its main proponents, refers to critical pedagogy as liberation pedagogy (Freire, 1972). The central concern is to liberate people by freeing them from their oppressed state and transforming them from objects of education to subjects of their own emancipation (Aliakbari & Faraji, 2011). The central claim is to support people to be able to change and shape the society in which they live. Through problem-orientated education and questioning of problematic issues in life, they should learn to think critically and develop a critical consciousness that helps them to improve their living conditions and take the necessary measures to build a more just society. Critical pedagogy challenges every form of domination, oppression, and subordination with the goal of emancipating oppressed or marginalized people (Aliakbari & Faraji, 2011). It draws attention to the ways in which knowledge, power, desire, and experience are produced under certain basic conditions of learning. In doing so, critical pedagogy rejects the notion that teaching is merely a method and divorced from issues of values, norms, and power (Giroux, 2020). The normative claim of critical pedagogy thus explicitly refers to the ethical power of judgment and creative power of the learners, which they should develop, as well as to the philosophical foundations of freedom. In the critical discourse on the development of critical pedagogy, in turn, some authors caution that the practice of critical pedagogy can move away from its claim to social change and improvement of living conditions (Cho, 2012; Tarlau, 2014). This discourse will not be explored further as it is beyond the scope of this dissertation. SIE can take up many aspects of the discourse around critical pedagogy and reflect it for pedagogical practice.

1.3.2 Capability Approach

Sen and Nussbaum's capability approach (CA) is another promising philosophy-of-freedom approach to understanding, analysing and teaching social innovation that has gained considerable prominence in the last two decades both academically and politically at the United Nations level (Sen, 1999, 2013). From a pedagogical point of view, the question is first and foremost "what should social innovation be taught for?" and then "how should social innovation should be taught?" (Boni & Walker, 2013; Wood & Deprez, 2012). In the CA, a holistic approach can be found that can offer answers regarding a future SIE and its normative questions of how teaching-learning settings should be designed, toward which goal and in what way social change and value creation should be realized. Therefore, the approach is briefly outlined in the following section. The CA is discussed from a critical pedagogical perspective (Boni & Walker, 2013; Wood & Deprez, 2012) and in the context of social innovations (Howaldt & Schwarz, 2017; Ziegler, 2018). The approach can serve as a helpful analytical framework for critically reflecting on and promoting social innovation based on normative ethical considerations that have not been widely discussed in the context of social entrepreneurship and social innovation, either in practice or in academia (Hota et al., 2019; Ziegler, Molnár, Chiappero-Martinetti, von Jacobi, et al., 2017). Both Howaldt & Schwarz (2017) and Ziegler et al. (2017) propose the CA as an analytical framework for social innovation. Ziegler (2018) sees the CA as a "cousin" of social innovation. The empowerment of all people, that is, the process of expanding freedoms in the form of capabilities and opportunities for a good life, forms the object and target horizon of this approach (Nussbaum & Sen, 1993; Sen, 2000). In the context of a humanistic economic and management paradigm, Dierksmeier (2019) refers to the role of social entrepreneurs and social innovators as actors for the realization of freedom (Dierksmeier, 2016; Gohl, 2018). In the CA, it is not the quantity of goods or services or growth that determines a good life, but the opportunities to live the life that each individual has good reasons to strive for (Sen, 2000; von Jacobi et al., 2017). The agency of each person plays an important role, which is why it has much in common with the concepts of innovation, entrepreneurship and innovative organizations (Chiappero-Martinetti et al., 2017). Sen defines agency as "what a person is free

to do and achieve in pursuit of whatever goals or values he or she regards as important" (Sen, 1985, p. 206). In this context, Cleaver (2007) particularly emphasizes the social context of the agent and agency. Ultimately, social and institutional conditions shape the opportunities and available resources in which individuals can realize their own ideas and live the lives they choose (Cleaver, 2007; Ibrahim & Alkire, 2007). Sen maintains that all human beings have the right to determine their own path in life and that they should be given the means to develop. This has implications for the way people are taught and learn according to their personal ideas and goals. Sen argues that simply teaching skills is not enough to truly improve capabilities. Whatever is taught and/or learned must offer the individual new choices. Skills must fit the needs and life aspirations of the individual who uses them (Glassman & Patton, 2014).

At this point, the CA will not be presented in more detail, as the systematic connection between critical pedagogy, CA and SIE is a research question of its own. Nevertheless, this short digression aimed to answer the open question of a possible holistic analytical framework for SIE and its design. Especially in the context of (higher) education, the CA seems to be a promising framework for developing learning individuals and societies that shape and design social change (Boni & Walker, 2013; Nussbaum, 2006; Peppin Vaughan, 2016). Humanistic-ethical questions ideally form the starting point for the development of learning programmes and the associated (personality) development of students and their abilities to engage in social innovations. In this context, the CA can provide substantial future guidance for education in general and for SIE in particular.

1.4 Learning ‘through’ Student (Civic) Engagement

For SIE, the development of individuals as socially and civically responsible change agents on the one hand, and their collective capacities for cooperation and joint effectiveness in the world on the other, play an important role (see also 1.3.2, Alden-Rivers, Nie, & Armellini, 2015; Kalemaki et al., 2019). The studies presented in this dissertation focus on social learning in communities. This includes, above all, social learning in project teams, in student initiatives or

engagement in social start-up teams. The individual engagement of a single student, for example blood donation, is not the subject of the studies.
In this last section of the theoretical introduction, therefore, the underlying understanding of learning ‘through’ the experience of student (voluntary) engagement in initiatives, teams and start-ups will be outlined. This section addresses student participation and empowerment and the curricular anchoring of their activities, which provides a theoretical and practical classification of the student learning environment.

1.4.1 Learning in Communities of Practice

Social learning has already been practiced at universities for some considerable time. This includes typical group work practiced often in the daily curriculum, project teaching, or service learning seminars and volunteer engagement groups active outside of the curriculum (Birdwell et al., 2013; C. Kim, 2015). Student clubs, initiatives and start-ups also provide a platform for (social) entrepreneurial and management practice (Pittaway et al., 2011; Preedy & Jones, 2017). Through their hands-on engagement they can be viewed as institutional innovators (Drupp et al., 2012), as entrepreneurial learning places (Pittaway et al., 2011), and as training sites for practicing social responsibility (Hamann et al., 2021). Many students are involved, for example, in student councils, music groups, cultural groups, religious groups, political groups and social justice or sustainability groups. All these initiatives, whether within the curriculum or extracurricular, can be understood as "communities of practice”. Wenger refers to these as "groups of people who share a common concern or passion for something they do and learn to do it better when they interact regularly" (Wenger & Wenger-Trayner, 2015, p. 1). Many (Hamann et al., 2021; Huth, 2018; Möller, 2019) student initiatives also implicitly or explicitly contribute to the idea of the common good (Etzioni, 2014) and the UN Sustainable Development Goals (SDGs) (Hamann et al., 2021; United Nations, 2019). For example. sustainability-orientated initiatives contribute to SDG 4 “Inclusive, Quality Education”, SDG 13 “Climate Change”, SDG 12 “Sustainable Consumption”, SDG 10 “Reduce Inequality” and SDG 16 “Peace and Justice”. They strengthen issues of ethics and sustainability, for example, by focusing on social or sustainable innovations,

creating them themselves or helping to disseminate them in the world (Murray, 2018; Pesch et al., 2019).

Working and learning in such thematic communities has a special significance for social innovation. Beyond this, however, it is above all the group rules, norms, values, and negotiation processes that complete the holistic learning processes. Understood from freedom philosophical considerations, the possibilities for action in group processes are significantly different from the norms and rules students experience in ordinary learning settings, where the individual (along with the teacher) seems to be solely responsible for learning success. Social learning in communities promotes and requires self-organization skills, responsibility for one's own actions in the group, joint negotiation and setting of goals, and responsibility for the consequences of one's actions as well as for the outcome and impact of the group in the world (Slavin et al., 2003; Tindale et al., 2002).

For the purpose of locating such learning through student engagement in groups at universities, student participation and active learning models are presented in the following section. This allows for the classification of (socially innovative) learning under the consideration of self-determination and power distribution (co-determination possibilities) for the design of teaching-learning settings.

1.4.2 Student Participation and Empowerment in Curriculum Design

Aspects of active learning, especially problem- and project-based learning (Cooper et al., 2004; Sutherland & Bonwell, 1996), active citizenship learning (Geier, 2018) collaborative learning (van der Linden et al., 2000), participative learning (Tsien & Tsui, 2007) and student empowerment (Broom, 2015) are of particular importance for SIE. To describe active and participative learning and their characteristics, various authors use a ladder as a metaphor.

The ladder model is also discussed in business and management education and describes, for example, learning settings between communities, students and teachers and different levels of participation, activities, and roles as citizens and/or students and teachers. Since the ladder model promises to better reflect SIE, which focuses on communities in particular, the concept will be introduced in the following (Willness et al., 2022).

Different aspects are derived, combined, and complemented in a participatory active learning ladder for SIE. In the following sections, only the most important aspects of different ladder models will be presented and aspects for SIE will be discussed.

Arnstein's Ladder of Civic Participation

A much-cited approach in the discourse on civic engagement is Arnstein's typology of the "ladder of citizen participation" (Gaber, 2019). Arnstein developed her ladder model based on practical examples and against the background of the implementation of public programmes and for the purpose of determining the degree of citizen participation. The model comprises eight rungs describing an increasing degree of citizen agency, control, and power (Figure 1.1).

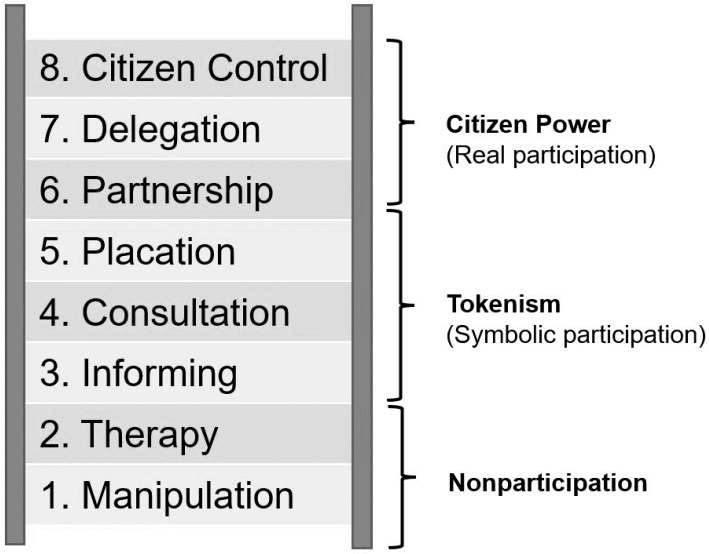

Figure 1.1 Arnstein's Ladder of Participation.
Source: According to Arnstein (1969, p.217; see also www.citizenshandbook.org/arnsteinsladder.html)

An understanding of the individual stages is less relevant for the dissertation at this point, but Arnstein's distinction of the stages on three levels is helpful. She describes "non-participation" as an area in which citizens have no power or say in shaping public programmes. The "real objective [at this level] is not to enable people to participate in planning or conducting programmes, but to enable powerholders to 'educate' or 'cure' the participants" (Arnstein, 1969, p. 217). The second area is called "tokenism" and here citizens possess only counterfeit power. Citizens are only symbolically involved. In the third area, "citizen power" public agencies and programmes are in partnership with citizens. Here, citizens are given power or possess the power to take full responsibility.

Bovill & Bulley´s Model of active student participation in curriculum design

Arnstein's model of participation had received little attention in the education sector until the 2010s. This changed with Bovill and Bulley (2011). They adapted the model to include learning settings and the role of students in the development and implementation of teaching programmes. In contrast to Arnstein's model, they make the power relationship between teachers and students the subject. They also describe eight rungs and four main levels of participation (Figure 1.2).

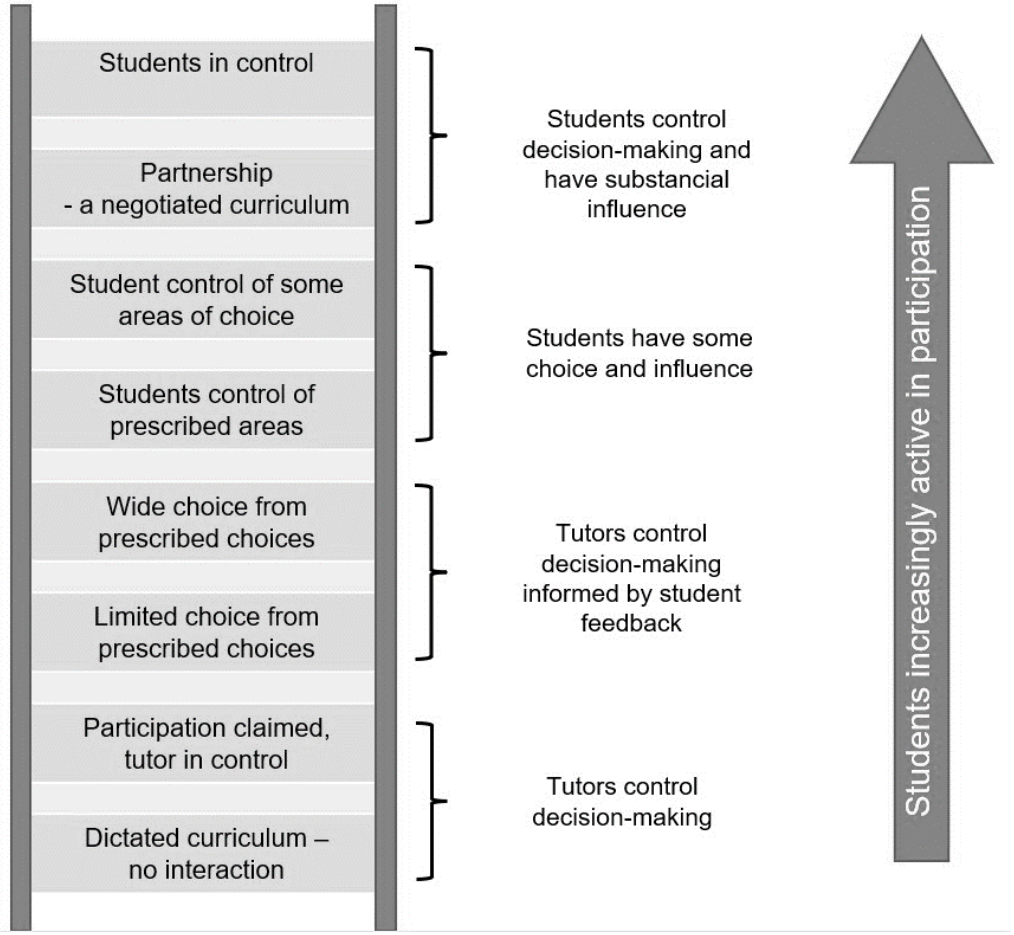

Figure 1.2 Ladder of Student Participation in Curriculum Design.
Source: According to Bovill & Bulley (2011, p.5)

The first rung describes the state of a given curriculum without interaction between teacher and student. At the second rung, feedback is obtained from students but not taken into account. Both levels represent a state of sole power and control of the teacher. The third rung describes a limited choice for the students, such as the possibility to choose from two texts for the next lesson.

On the fourth rung, students choose from a given selection of options. As an example, a choice could be made from fixed types of assessments.
At both rungs, the teacher seeks the opinion and feedback of the students and incorporates this into the design of the course. Students have, however, no real power on this level. The fifth rung represents student control of specified areas. Students can, for example, choose from different thematic areas and develop their own assessment. On the sixth rung, students have control over some elective areas. For example, students could choose areas from the curriculum that they would like to design, such as a project to achieve learning objectives. On both rungs, students have co-determination possibilities and some influence. On the seventh rung, teachers and students meet as partners at eye level. The course is based, for example, on the students' experiences and previous work. Students actively and carefully negotiate the curriculum with the teacher. At the eighth level, students are in full control of the curriculum. Examples include student journal clubs or student-led initiatives. At both rungs, students have control over decision-making and substantial influence.
This model describes important aspects of the student empowerment process within an educational institutional setting (ibid.). Both variants of Arnstein's model outlined here intend to understand and promote empowerment processes. Empowerment is considered one of the most important goals in civic education as well as social and civic studies (Broom, 2015). In the following, therefore, the concept of student empowerment is introduced as well.

Student Empowerment

Empowerment is usually defined as a process by which people gain mastery over issues of concern to them. It is seen as a multi-dimensional social process that helps people gain control over their own lives. The process fosters power in people for use in their own lives, their communities and in their society, by acting on issues they consider important (Page & Czuba, 1999; Sen, 1999).
Empowerment processes are always dependent on the individual and the social context in which the process takes place, that is, intrapersonal, interactional, and behavioural components. For example, an empowerment process is different in a family context than in a school or university (Zimmerman, 1995). In a school context or university context, it is primarily the relationships between teachers

and students as opposed to, for example, a parent-child relationship. Here, it is primarily learning settings that determine and enable the empowerment process (ibid.). Kirk et al. (2017) extend Bovill and Bulley's model and identify three important aspects for a successful empowerment process: 1. A trusting teacher-student relationship, 2. roles of shared responsibility between teacher and students, and 3. a sense of community and belonging both among students and with the teacher.

For the design of an empowering teaching role, various aspects are addressed in the literature. This mainly concerns a student-centred approach as opposed to teacher-centred teaching. This includes, for example, building students' capabilities and giving them greater control and choice over their own learning making them feel valued for being themselves (Broom, 2015). They may give students more general instructions and goals, and thus the opportunity to direct their own learning processes (ibid.). For example, in the course of guiding students, teachers can give students increasingly less detailed criteria regarding learning content and learning processes and more choices regarding the design of learning processes (Brooman et al., 2014). Teachers can empower students through instruction that encourages inquiry and reflection, and this is fostered in and through relationships (ibid.). These are enabled, for example, through group work and inquiry projects (Burkill, 1997).

Curricular, co-curricular and extracurricular activities

In order to classify student engagement in project teams within the university's understanding of teaching, it is helpful to distinguish between curricular, co-curricular, and extracurricular learning settings. Activities that are inherent to the study program, related to the study program, and part of the student's leisure time are often described using the terms curricular, co-curricular, and extracurricular activities. In the literature there is as yet no uniform and exact understanding of what distinguishes these groupings of activities (Bartkus et al., 2012). What can be said is that co-curricular learning settings differ from curricular ones in certain aspects, while extracurricular activities can be distinguished even more clearly from curricular activities.

Curricular activities and learning settings are characterized in particular by predetermined learning content, performance requirements, examinations, and

especially by the relationship between teachers and students (ibid.). In contrast to this, Bartkus et al. (2012) define extracurricular activities as “ academic or non-academic activities that are conducted under the auspices of the school but occur outside of normal classroom time and are not part of the curriculum. Additionally, extracurricular activities do not involve a grade or academic credit and participation is optional on the part of the student” (Bartkus et al., 2012, p. 698). A co-curricular activity is described by the authors as “one that requires a student’s participation outside of normal classroom time as a condition for meeting a curricular requirement” (Bartkus et al., 2012, p. 699).

1.4.3 Ladder of Participation and Empowerment in Social Innovation Education

The following final section serves as a schematic classification of social-innovative learning in communities, which is addressed in all three studies in this dissertation. It serves to situate this form of community learning as self- and world-responsible learning by presenting a “ladder of participation and empowerment” (Arnstein, 1969; Bovill & Bulley, 2011; Shier,2001; Sinakou et al., 2019). Figure 1.3 serves to classify different social learning environments in which socially innovative learning is practiced at universities. In contrast to the ladder conceptions presented so far, learning in project teams, initiatives and social start-ups is put in focus and combined with the concepts of teaching about and through social innovation as well as the classification into curricular, co-curricular and extracurricular learning settings. The presented model describes 5 rungs. The first rung describes learning settings in which content in the form of classical knowledge transfer is in the foreground. This rung is primarily characterized by a teacher-centered learning setting in the sense of teaching "about" social innovation. This includes, for example, classic lectures or participatory seminars that help students to understand theoretical content, e.g., in the form of text work. The responsibility for teaching content as well as the framing of the learning process lies primarily in the hands of the teacher. This stage could be further differentiated according to the previously presented models.

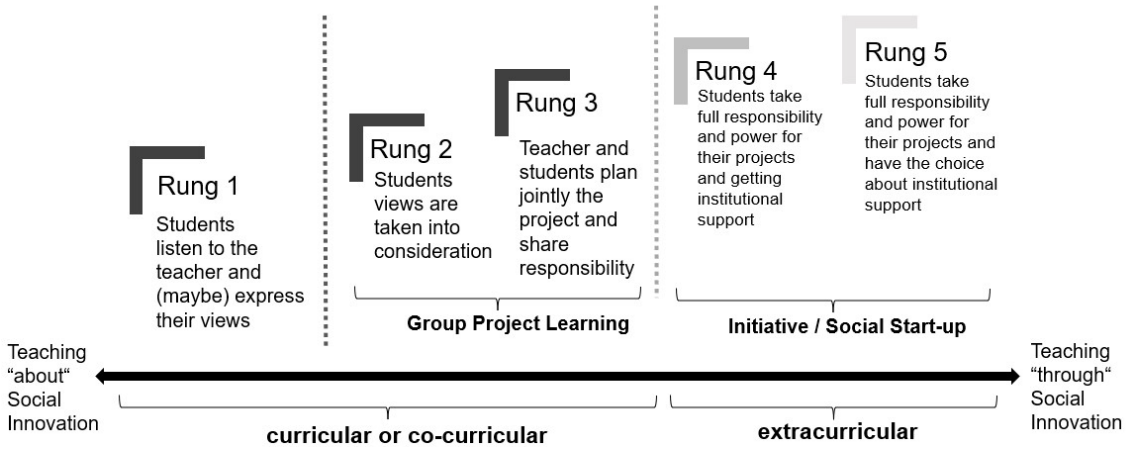

Figure 1.3: Pathways of participation and empowerment in SIE Project-based Learning
Source: Own representation.

This will be omitted, however, since teaching "about" social innovation is not the (main) subject of this dissertation (Kakouris & Liargovas, 2021). From the 2nd rung on, the model already describes project-based and social learning settings in groups and teams. Rung 2 represents learning settings in which content, topics or possible external project partners are mainly determined by the teacher without active participation in the decision-making and design of the curriculum by students (Lackeus, 2015). Examples of this are service-learning seminars, which have to follow a narrow subject-specific curriculum and regulations (Kim, 2015). Rung 3 differs from rung 2 in particular by allowing students to help shape and design the curriculum through open choices regarding learning content and processes. These learning settings are less rigidly prescribed by curricula. For example, students choose their own project topics, develop their own ideas, and take a high degree of responsibility for their own learning processes. These types of learning environments are often co-curricularly anchored (Bartkus et al., 2012). These allow for open co-creation by students.

Rungs 2 and 3 are characterized by a (co-)curricular anchored teacher-student relationship. There is an obligation to complete coursework. At the same time, learning "through" social innovation comes more to the fore.

Rung 4 refers to extracurricular learning settings where the teacher-student relationship as a power relationship essential for graduation has completely disappeared. Students as groups and civic actors have full control over their activities, but at the same time are still relatively dependent on university support

structures (Keser et al., 2012). This may include, for example, dependence on the use of university premises, financial support, coaching by university staff, or symbolic status as a university group or by participation in a university incubator program (Sansole et al.,2020).

Rung 5 describes learning environments in which there is little or no dependence on university support structures. This rung is characterized by a high degree of choice between different support options within and outside the university.

Each rung of ladder describes a higher degree of learner participation and responsibility in setting learning goals and processes.

The purpose of the presented model is, in the sense of critical pedagogy, to point out power and dependency relations in different learning settings, thus giving orientation to teachers in the development of empowering learning settings and, in general, to emphasize the importance of extracurricular learning settings according to an education "through" social innovation.

The model shows the social-innovative engagement in initiatives and start-ups as a personal as well as organisational empowerment and learning process. Students learn to take responsibility for their learning content, their learning processes, for their behaviour in the group and for their common effects in the world. These processes are particularly dependent on institutional conditions such as the teacher-student relationship, the university-specific culture, and the associated support structures for (extracurricular) civic engagement of students, their initiatives and start-up projects. Such self- and world-responsible learning in communities of practice expresses the understanding of SIE underlying this dissertation. The following three studies shed light on this type of learning from institutional, didactic, and competency development aspects to create space for such learning settings at universities.

1.5 Summary of Underlying Theories

Finally, the approaches presented here should be brought together again and placed in relation to the (critical) discourse of economics. The previous, introductory chapters make clear the self-understanding around the normative claim of SIE, which is the basis of this dissertation. SIE is understood as an educational process that seeks to change and improve both personal and social

conditions. In this understanding, the learning individual moves to the centre of social learning environments. SIE is understood as a self-effective, and world-impacting, learning process of individuals and their communities. The humanistic, freedom-philosophical approaches of critical pedagogy presented, and the normative-ethical capability approach, as well as the constructivist understanding of entrepreneurship and Dewey's experience-based learning theories (Charmaz, 2017; Kivinen, 2003; Walker, 2019; Zimmermann, 2006; Walker, 2019), are understood as primarily complementary approaches and theories. At the same time, they remain in contradiction to an economic science's self-image as an exact and (supposedly) value-free economic science (Decker et al. 2019; Gräbner & Strunk, 2020). Sen, for example, explicitly criticizes the prevailing “value-free” economic theory, which is based primarily on utilitarian considerations and the reductive concept of *homo oeconomicus*, and thus chooses a mechanical view of human beings as its (normative) foundation (Sen, 1999).

The chosen theoretical approaches of this dissertation, or parts thereof, are therefore subject to criticism, even within the field of economics. These approaches (tend to) belong to the schools of thought of plural and transformative economics (Schneidewind et al., 2016; ibid.), which advocate a greater plurality of theories and methods alongside neoclassical theory or proclaim social change processes (with science).

In turn, the school of thought of plural economics, and its claim to give priority to a diversity of methods, is often accused of being unscientific. In the sense of "anything goes", it is argued that the selection of theories and methods need only be diverse, without satisfying a qualitative demand for a well-founded selection of theories and approaches (Gräbner & Strunk, 2020). Humanistic economics emphasises the complexity of human action, which cannot be reduced to the concept of homo economicus. It argues for such pluralism, which increases the chances of seeing human action more realistically. Undercomplex methods run the risk of unrealistic results. Realism, however, matters. Accordingly, humanistic economists emphasise the responsibility of scientists to consider those of the human and social sciences, when choosing their theories and methods (Dierksmeier, 2016).

The diversity of qualitative and quantitative methods and theories employed in the subsequent studies makes it clear that, depending on the knowledge interest, different methods were deemed to be purposeful. The first study on the World Citizen School Model primarily follows a qualitative, constructivist understanding of knowledge, the second follows a primarily qualitative approach with quantitative portions in data collection, and the third represents a purely quantitative empirical study. In this respect, the dissertation contributes, even if only indirectly, to the discussion about the diversity of economic approaches with their different methods and theories, which, from a business ethics perspective, gives priority to normativity through appropriate transparency (ibid.).

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2 The World Citizen School – A space for self-organized learning of socially engaged student initiatives

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Abstract

The civic engagement of students can contribute to all missions of a university: teaching, research, and transfer to society. Even so, student initiatives are often overlooked in that context.

Through the example of the World Citizen School model, which was developed at the University of Tübingen, this workshop report aims to show how civic engagement of student initiatives can be anchored and promoted at universities. The focus is on the description of the model and the interplay of the various constituent aspects. The illustrations draw special attention to the often-overlooked potential of self-organized learning and engagement of student initiatives for university teaching.

Keyword

Student engagement, Civic engagement, Self-determined learning, Social Entrepreneurship, Non-Profit-Management

2.1 Civic Engagement and Student Initiatives

Using the example of the World Citizen School (WCS) model and the related activities of student initiatives, this article aims to show how the civic engagement of student initiatives was anchored and promoted at the University of Tübingen (Chapter 2). In chapter 3, possible transferable activities and aspects are explored. Chapter 4 closes with a reflection of the most important results and shows potential further developments of the model.

The demand for improvements in curricula and study conditions from the student body as well as the general civic engagement of students in and beside their studies is not a new phenomenon (Fischer, 2006). Since there have been student committees or parliaments at universities, students have used these institutions to im-prove the prevailing teaching, research, and study conditions. The influence of political student groups at German universities, however, is limited at most universities (Ditzel & Bergt, 2013; Müller & Voegelin, 2002; Winter, 2005). An important factor for the weak state of student participation is, above all, systemic. In general, valuable information is lost due to high student turnover. Each subsequent student generation builds up the necessary knowledge and networks for shaping higher education policy, which are typically lost when one generation of students is replaced by the next. Shortening the studying time by introducing separate bachelor's and master's degrees due to the Bologna process makes the situation even more difficult (Keeling, 2006).

Changes in the scope of research, teaching, and study conditions are, however, not only caused by political groups or faculties but also by student initiatives, which are often overlooked in the context of the development of higher education. Such initiatives are usually not part of formal bodies or committees. They can be seen as free groups or "communities of practice" that Wenger defined as "groups of people, who share a concern or passion for something they do and they learn how to do it better and as they interact regularly" (Wenger & Wenger-Trayner, 2015, p. 1).

In contrast to political groups, whose main focus is on political participation, these free groups pursue their aims, for example by organizing their own educational events. They can also appear as institutional innovators (Drupp et al., 2012). Students and their initiatives are increasingly offered the opportunity to have their

courses recognised with credit points, for example by the centres for key qualifications of the universities (Wihlenda, 2015).

Against this backdrop, the WCS focuses on student initiatives from the outset. It follows the definition of civic engagement as formulated, for example, by Tom Ehrlich:

“Civic engagement means working to make a difference in the civic life of our communities and developing the combination of knowledge, skills, values and motivation to make that difference. It means promoting the quality of life in a community, through both political and non-political processes” (Ehrlich, 2000, p. vi). The WCS understands students initiatives as a subgroup of civil society initiatives and attributes them to the non-profit sector, which, according to Salamon and Anheier (1998), is characterised by privacy as distinct from the government, by self-governing and a corresponding share of voluntary activities. As the term “student initiative” suggests, the membership structure is predominantly characterised by student members who are registered at a (German) university. Some initiatives are organised independently and are active as free project groups, while others are organised as, for example, local associations or belong to regional or global student organisations.

2.2 The World Citizen School Model

In May 2013, the Weltethos Institute at the University of Tübingen launched the WCS model project. The aim of it was to anchor the student commitment institutionally within the framework of a holistic organisational model and, thus, to secure it permanently. The goal is to empower students to develop and use their knowledge and abilities for the good of society. It provides a learning environment, which motivates students and supports them to take on social responsibility. As of January 2018, the WCS counts 23 member initiatives in Tübingen. Each semester, more than 200 voluntarily committed students learn from one another in informal and interdisciplinary networks, organizing educational activities themselves, engaging in cooperation, and starting projects. The students are supported by an engagement-promoting programme by the Weltethos Institute staff with regular input from external lecturers, coaches, and mentors.

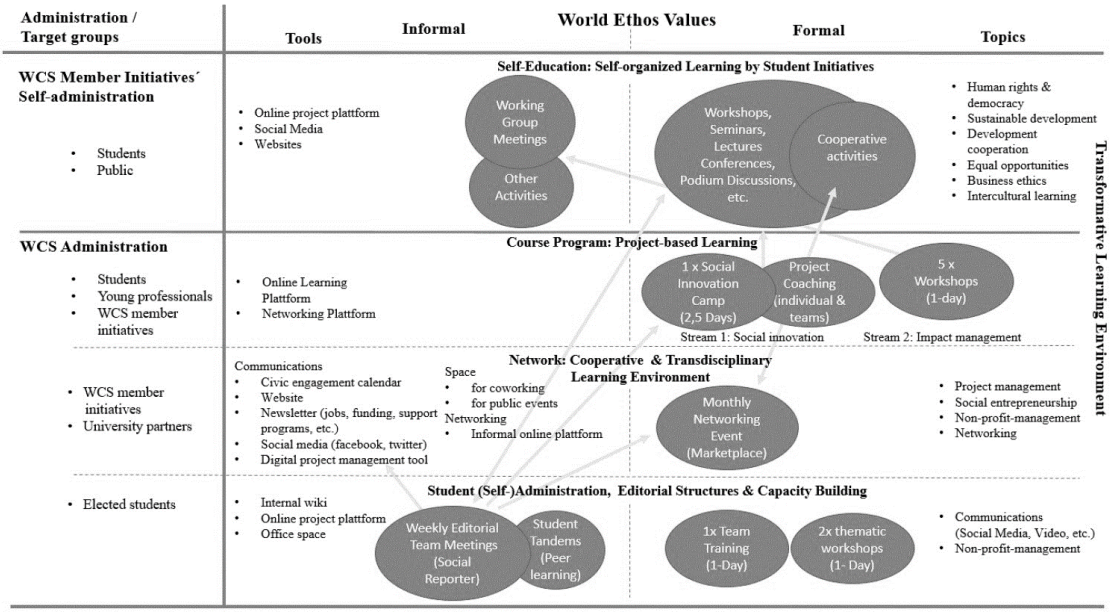

Figure 2.1 World Citizen School Model.
Source: Own representation.

In the following, the corresponding aspects of the model are presented.

Educational Approach

Values

The goal of all the WCS activities is to create public welfare. The initiatives orientate themselves around the Weltethos values of humanity, mutuality, peacefulness, partnership, honesty, and justice as Küng defined them in his Global Ethic Project (Küng, 1998).

Accordingly, the WCS aims to enable students to gain the necessary knowledge and competence to address the social challenges as they are, for example, articulated by the United Nations (UN) Sustainable Development Goals (United Nations, 2016) or the UN Principles for Responsible Management Education (PRME) Initiative (Haertle et al., 2017).

Self-Education: Self-organised Learning by Student Initiatives

The principal activities of the initiatives are related to one or more of the themes of sustainable development, development cooperation, business ethics, educational justice, human rights, or global and intercultural learning. The

following examples will give a brief insight into the different activities of selected initiatives.
Detailed information on these examples as well as an exemplary listing of all educational activities of the member initiatives from the winter semester 15/16 can be found in the Impact Report 2013-2016 in the annex (Wihlenda, 2016).

Example 1: UN University Group Tübingen
The initiative organises weekly lectures on a jointly agreed semester topic in the context of the work of the UN. These are held by own members or by external students or lecturers. Once a year, the group organises the international Tübingen International Crises Simulation, to which international students from the global network of the UN travel and dedicate themselves to the work and challenges of the UN within the framework of a role play. (See for details: www.tics-conference.org)

Example 2: Rethinking Economics Tübingen
The group belongs to the International Student Movement for Pluralism in Economics. In Tübingen, she regularly organises lectures series to offer her fellow students alternative theoretical and methodological approaches to economics. In addition, the group organised the 1st international conference of the International Student Initiative for Pluralism in Economics to which students from over 20 countries arrived. (See for details: www.isipe.net)

Example 3: Greening the University Tübingen
The group has been working for sustainable development at the university for about 10 years. The group organised in 2009 the study Oecologicum, an alternative study program. While this was initially organised and funded by the group, it has now been funded by public funds for several years and is an integral part of the university's programme of study. (See for details: www.greening-the-university.de)

Example 4: Arbeiterkind.de (Workers' Children) Tübingen
The group is committed to facilitating access to university through mentoring programs for children of parents who did not attend university. In 2017, the group carried out an empirical study at the university, not least acquiring methodological knowledge from empirical social research. (See for details: www.netzwerk.arbeiterkind.de)

Example 5: Cooperative Activities and Peer Learning between WCS Members. It is common for member initiatives to exploit synergies and cooperate in workshops or invite students from other initiatives, for example for short presentations in their own initiative. One of the more visible collaborative projects is the so-called "Education Weeks", in which different initiatives come together and offer different workshops and activities during the week, sometimes in cooperation. The "Human rights week" and a "World climate week" followed the first "Week of Links – Week for Sustainable Development" in 2014. (See for details https://mrw-tuebingen.de/ and https://nez-tuebingen.org)

Course Program: Project-based Learning
The course programme is aimed at individual students as well as initiatives. Project-based and experience-based learning are in the didactic focus of the program. It follows two streams.
Stream 1: Social Innovation supports participants developing a new project idea or a social enterprise. In two-day social innovation camp and by personal project coaching students to learn how to conceptualise their own ideas.
Stream 2: Impact Management supports participants from existing project teams, initiatives. In five workshops about communication, project management, impact reporting, stakeholder management and fundraising students learn about real organizational challenges. A special feature of the course is that it is organised by selected students.
In both streams, project teams and single students are led and supported in their learning processes by experienced practitioners and lecturers of management and social entrepreneurship.

Network: Cooperative & transdisciplinary learning environment

The main features of the network are the moderation and the interdisciplinarity. The regular moderation of networking events and the serving of online networking tools are important instruments to govern the transdisciplinary learning space. All member initiatives whose single membership structures are usually interdisciplinary and university partners together build the transdisciplinary network. Needs and interests, as well as cooperation are explored in regular networking events.

University partners are the Career Service, which also provides the recognition of volunteering by credit points, the Centre for Didactics, the Foreign Language Centre, the Competence Centre for Sustainable Development, and the Centre for International & European Studies.

Student (Self-)administration, Editorial Structures, & Capacity Building

The WCS established a so-called “social reporting program” for selected students. It runs for the duration of one year and is designed to learn the basics of communications and management. Students learn to communicate about the activities of member initiatives as well as news by website, social media, and newsletter.

2.3 Knowledge Transfer

Looking back at the four-year development process, some aspects of the WCS appear to have the potential to be implemented at other universities.

The documentation of all WCS activities from 2013–2017 serves as the basis for the following results, which are described as transferable. The results regarding self-organized learning in initiatives are based on a first survey of the activities of member initiatives and in the form of the single case studies presented in Chapter 2. The structure of that chapter follows top-down the stages of the WCS model presented in Fig.1.

Self-organized learning of student initiatives and network effects

To strengthen our knowledge about the potential of student initiative’s self-education, we conducted a study of the activities of 15 member initiatives in the

winter term of 2015/16. In total, we recorded 280 events through interviews, questionnaires, and internet searches. The preliminary evaluation showed, that 60% of all events were informal working meetings, which are mostly used to discuss, reflect, and plan activities. 29% of the events had the character of formal education like seminars, workshops, lectures series, or conferences. 22% of these educational events were offered to the public and treated mostly the initiatives' principal topics. 7% were offered only to group members and considered mostly organizational or personal development issues. The remaining 11 % were events of general information about the initiatives, recruiting events for new members, fundraising activities, stands at fairs, or had a socializing character.

As shown above, student initiatives as "open educational initiatives" (Dürnberger et al., 2011) show potential for university teaching. Usually, the educational engagement is distinguished by a particular social and up-to-date relevance of the topics covered. It can have innovative and transformative character for research, teaching, and study structures as shown by the single cases in Chapter 2. The educational engagement is a suitable extracurricular complement to the university education offering, which is characterized by both project-based and self-determined learning. It offers the possibility, as successfully practiced at the University of Tübingen, to integrate it into the curriculum in the field of further qualifications. About a fifth of the current WCS member initiatives accept the curricular offer from the university.

Furthermore, the moderation of the WCS network shows effects in terms of a significant increase in cooperative activities, for example, by workshops, seminars, mutual presentations on the main topic of each initiative, or imitation effects by sharing of solutions for common organizational challenges. The cooperation and imitation effects are, for example, particularly clear through the jointly organized and designed thematic weeks by different initiatives as mentioned in Chapter 2

Example 5.

Course program: What works, and what does not?

In the following, a distinction is made between initiatives, which usually have a lifetime of more than one generation (established initiatives) and those that are in the start-up phase and less than one generation old (start-up initiatives).

Addressing Start-up Initiatives (Stream 1)

The Stream 1: Social innovation is suitable to address entirely new initiatives and initiatives that are still shaped by the founding generation. In younger initiatives that are still at an early stage of development, the motivation to participate in the workshop offers tends to be higher than for established initiatives.

Addressing Established Initiatives (Stream 2)

To address the established initiatives, Stream 2: Impact management was developed and has been implemented in a pilot project. Under certain circumstances (see Chapter 4) established Initiatives can be successfully addressed.

Addressing all Initiatives with Project Coaching

Project coaching is a suitable way to counteract the often informal and spontaneous character of both established and start-up initiatives with flexibility. Both in the context of formal course offerings and within the informal network structures, students express themselves positively to the coaching. Important or interesting information can be fed back into the network by the coaches and strengths the network cohesion.

Organisation of workshops by recruited students

In a pilot project recruited students organized several workshops themselves. They received credit points, project responsibility, and a budget for the implementation. The candidates learned about project management through searching for lecturers, preparing course material, conducting the didactic design, and performing professional follow-ups. Throughout the process, experienced lecturers were available to the students. The approach appears to be a promising concept for other course de-signs despite the high organizational effort and the relatively high personnel costs compared to conventional courses.

Construction of network structures

When addressing potential member initiatives to build the network, we were looking for initiatives that create value for society. This approach led to a process of self-selection that can be subsumed gradually into the mentioned WCS main themes. During a semester, the organisation of three-monthly exclusive networking meetings for members and a summer or winter party ensures members commitment.

Organisational and editorial structures

The WCS model creates an organisational memory over time, which allows following student generations to build on previous knowledge. A central calendar where all activities and events of member initiatives are collected and communicated to the public is a useful tool. Furthermore, the establishment of a newsletter, a social media channel and simple video clips are suitable to keep the network and the public informed.

2.4 Reflections

The WCS model is about what committed students make of their freedom and opportunities in the context of university life itself. It is about the key question of how students can learn to learn what they want to learn. The bottom-up integration of student initiatives in the WCS model systematically directs the gaze to this process level. The WCS model generally offers a change of perspective and development potential as a supplement to and improvement on classical higher education.

The work with the initiatives has made it clear that voluntary commitment follows its own logic and that the project work of volunteers cannot necessarily be supported by classical course didactics. Although we organised numerous workshops which were tailor-made at the request of the established initiatives themselves, these were not accepted as expected by them in their role as “normal” participants. The reasons for this included a lack of time, budget, and the divergence of the specific needs and the timing of the offer. At the same time, however, it was easy to involve established initiatives in their role as practice partners and to discuss their specific challenges with the “normal” participants.

The assumption that established initiatives take part in courses on Stream 1: Social Innovation in order to systematically design and implement new project ideas has not yet been strongly confirmed. The reasons for this could be the generally short-term activities of established initiatives, which are usually only about implementing a project in a unique manner and in as little time as possible. Another reason could be that the influence of a “founder generation” or students with a corresponding entrepreneurial attitude is not part of the initiatives (anymore). Further empirical findings are needed.

To have a look into the future of WCS, interesting and possible development paths can be identified. One of these could be the increased promotion of democratic competences through the additional involvement of political university groups. Also, the teaching of research skills could be a driver for Participatory Research and Citizen Science. Finally, the model also offers the possibility to create an even stronger link to society, for example through the explicit involvement of civil society, or political or economic actors in the context of service learning.

WCSs’ greatest potential for higher education is, however, presumably because by looking at self-organized and self-determined learning and the interdisciplinary network, new spaces of thought and opportunity are created, which can be also used to supplement conventional service learning and to implement new didactic concepts in the different subject disciplines.

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3 The Social Innovation Camp – Fostering Social Entrepreneurship as a Process

This manuscript is submitted to the ‘Journal of Social Entrepreneurship’.

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Abstract

Social Innovation needs to be fostered in Higher Education Institutions. The “social innovation camp” is a learning scenario systematically designed to foster social entrepreneurship and positive social change. Using design-based research, the social innovation camp was formatively evaluated. Thus, it was possible to generate design principles which can be transferred to similar initiatives at other Higher Education Institutions. In summary, this paper contributes to the practice of social entrepreneurship education by showing the potential of the philosophy of inquiry-based learning for the design of socially innovative learning scenarios, social entrepreneurial practice as well as (educational) design-based research.

Keywords

Social Innovation, social entrepreneurship education, inquiry-based learning, pragmatism, process philosophy

3.1 Introduction: Social Innovation in Today's Higher Education

The question of the future of education affects Higher Education Institutions (HEIs) in particular. Above all, the question is how educational practices should be designed in the future. From a desire for social innovation as a goal and outcome of HEIs (Giesecke and Schartinger 2021), the question is how the institutions can integrate social innovation into their teaching (and research). HEIs have always been aware of their mission in society, i.e., to promote innovation and, more importantly, to develop knowledge in society. Lately, the notion of the so-called third mission, in addition to the two missions of research and teaching, gives explicit attention to the importance of social transfer (Zomer and Benneworth 2011).

To contribute to society, multiple learning approaches have been developed to address students' critical thinking, creative skills or entrepreneurial thinking (Banks 2014; de Haan 2006; Joyce and Paquin 2016; Pigozzi 2006). Examples include transformative citizenship education (Banks 2014; Johnson and Morris 2010), critical entrepreneurship education (Berglund and Verduyn 2018), or education for sustainable development (de Haan, 2006; Koe Hwee Nga & Shamuganathan, 2010; Mogensen & Schnack, 2010; Vare & Scott, 2007). These approaches are often related to the idea of social entrepreneurship and social innovation (Defourny and Nyssens 2008; Howaldt and Schwarz 2010; Etzkowitz 2015; Caldwell, Harris, and Renko 2012; Schwab 2008).

Social Entrepreneurship has found its way into both the business world and into scientific discussions, and increasingly into teaching, for instance at business schools (Peredo and McLean 2006; Mair and Noboa 2006; Hockerts 2018).

There is no single, ubiquitously accepted definition of social entrepreneurship. For this paper, we follow the proposition by Peredo and McLean (2006) that social entrepreneurship "is exercised where some person or persons (1) aim either exclusively or in some prominent way to create social value of some kind, and pursue that goal through some combination of (2) recognizing and exploiting opportunities to create this value, (3) employing innovation, (4) tolerating risk and (5) declining to accept limitations in available resources" (p 1). This proposition is well recognized in academic discussions (Hota, Subramanian, and Narayanamurthy 2019). Its broad understanding includes e.g. non-profit and for-

profit activities as well as not only the “managing” but also the “organizing” of different types of organizations, companies or projects (Parker 2018; Berglund and Verduyn 2018). It is also in line with contemporary discussions on entrepreneurship education, which centre on the theoretical and philosophical foundations of experience-based teaching and learning (Hägg and Gabrielsson 2019; Hockerts 2018; Thomsen, Muurlink, and Best 2021). Moreover, the definition also draws attention to the understanding of (social) entrepreneurship as (social) ‘entrepreneuring’ which can be defined as “efforts to bring about new economic, social institutional and cultural environments through the actions of an individual or a group of individuals” (Rindova, Barry, & Ketchen, 2009, p. 477; see also Mair et al., 2012; Steyaert, 2007). Social entrepreneurship and social innovation are often used indiscriminately. Both terms are closely related but are subject to different social entrepreneurship schools of thought (see Literature Review).

Relying on approaches of social entrepreneurship and experienced-based learning, the social innovation camp was developed which aims to support students in their social innovation activities. The camp is part of an educational programme offered to all students at a big German university. It attracts undergraduates as well as graduates (and young professionals) from all disciplines. It is part of the co-curricular programme and can be included in their studies, thus, students can receive credits for participating in the camp. The camp has taken place every semester since 2015. It lasts three days (from Friday until Sunday) and in addition to the first author as the organizer of the camp, three coaches and a moderator are involved in the implementation of the camp. The camp aims to foster self-organized learning by implementing one’s own (social) entrepreneurial ideas and projects. In the camp, students will get to know and apply social entrepreneurial methods. These methods are designed to develop students’ skills in creative thinking, oral and written communication, networking, collaboration, critical thinking and project planning, thus, addressing key social entrepreneurial competences (Capella-Peris et al. 2020; Kalemaki, Kantsiou, and Wall 2019; Alden-Rivers, Nie, and Armellini 2015; Schwarz 2014). Furthermore, the participants will reflect on their own strengths, their personality and their challenges regarding their project idea (Sarasvathy 2009) . Participants have the

opportunity to participate as an individual, to register with an existing project team or to join a (forming) team on site.

Our focus on the procedural term of ‘entrepreneuring’ emphasizes the strong process character of our overall approach. This includes the theoretical foundation of the social innovation camp as an inquiry-based learning process based on process philosophical thoughts as well as the use of design-based research to further develop our instructional innovation (Oliver & Gershman, 1989; Whitehead, 1978; see also “Rationale for the social innovation camp”). In the following, we will briefly review the literature, which is followed by the rationale and the design of the social innovation camp. As an evaluation, we will show the systematic approach of design-based research which results in two key design assumptions which can be transferred to other institutions and are also instructive for the further development of (social) entrepreneurial teaching and learning.

3.1.1 Literature Review

In order to situate our chosen approach within the scientific discourse, two dominant schools of thought regarding social entrepreneurship need to be discussed: One tradition, the ‘earned income school of thought’ emphasizes the commercial aspects and typically requires the sale of products and services in addition to the social mission. This includes non-profit organizations that are economically active, also called the ‘commercial non-profit approach**’,** as well as for-profit organizations that primarily pursue a social mission, which can be called the ‘mission-driven business approach’.

The second tradition can be labelled the "social innovation school of thought" and focuses primarily on the individual social entrepreneurs who are regarded as changemakers: they implement new ideas, for instance new (quality of) service, new production methods, new forms of organization or new markets. In this tradition, social entrepreneurship is more a question of results and social impact than a question of income (Defourny and Nyssens 2010). Accordingly, social innovation is about positive changes in society, implying “a sustainable approach to improving society by taking positive action to address social problems” (Alden-Rivers et al. 2015, 2). Such activities may or may not involve commercial activities.

In addition to these approaches to social entrepreneurship, four approaches to social entrepreneurship education can be distinguished (Berglund and Verduyn 2018; Lackeus 2015). These include teaching “about entrepreneurship” where a theoretical overview of entrepreneurship is provided. Teaching “for entrepreneurship” is intended to convey the knowledge required to aspiring entrepreneurs. These include, e.g., workshops on fundraising, marketing, and other related content. Teaching “in entrepreneurship” is a form of management training for established entrepreneurs or managers. Teaching “through” entrepreneurship” promotes concrete experiences in which students undergo entrepreneurial learning processes. The “through” draws the focus on experiential, self-organized and project-based learning. As diverse as entrepreneurship education programmes are, the programmes continue to evolve, are supplemented and changed by new thematic priorities (Mars and Garrison 2009; Parris and McInnis-Bowers 2017; Berglund and Verduyn 2018). Almost no educational approaches, however, have been discussed under the term "social innovation" so far. Alden-Rivers et al. (2015, 3) define SIE “as the complex process of developing graduates who aspire to change the world for the better, regardless of career path. These individuals are knowledgeable, socially and ethically responsible, as well as emotionally intelligent innovators, leaders and communicators”. So far, there is a lack of learning designs with a solid theoretical basis to promote SIE.

In this chapter, we will contribute to this discussion on SIE and social entrepreneurship education by describing the social innovation camp as an instructional innovation to foster positive social change. The instructional innovation can be located at the intersection between the discourses on education through entrepreneurship (Lackeus 2015), the continuing evolving of entrepreneurship education and programmes into new directions like social entrepreneurship (Berglund and Verduyn 2018; Mars and Garrison 2009; Parris and McInnis-Bowers 2017; Mirabella and Young 2012), and the discourse about SIE, which is still very rarely described (Alden-Rivers et al. 2015; Kalemaki, Kantsiou, and Wall 2019). Therefore, the goal of this chapter is twofold. First, based on the theoretical foundation, the design of the social innovation camp will be described systematically. Second, the instructional innovation is evaluated employing design-based research to survey student experience, which results in

design principles that can be transferred to similar initiatives at other Higher Education Institutions (HEIs). Thus, this instructional innovation contributes to the literature of social entrepreneurship education in two ways: 1) from a practitioner's point of view, a well-developed learning design to foster social innovation at HEIs can be adapted to other contexts, and 2) we also aim to contribute to the literature on social entrepreneurship by providing first insights into the evaluation of this experiential learning design. Both the learning design as well as the evaluation of the learning scenario, which uses design-based research, are rooted in the theoretical foundations of pragmatism.

3.2 Rationale for the Social Innovation Camp: Inquiry-based Learning

The design of the social innovation camp has a strong process character and follows the pragmatist inquiry-based learning (IBL) approach (Dimova and Kamarska 2015; Pittaway 2009; Whitehead 1978).

Based on Dewey's philosophy of education where knowledge is seen as the result of an active adaptation of the human organism to its environment (Harris 2014; Dewey 2018), different variants of IBL can be distinguished (Pedaste et al. 2015): a prominent example is Bishop and Bruce's (2002) cycle of inquiry. It combines the four stages of experienced-based learning (Dewey, 2018) with the curiosity of the learner. The IBL cycle is defined as a five-phase spiral path of inquiry: *asking questions, investigating solutions, creating, discussing discoveries and experiences, and reflecting on our newly gained knowledge*. To start the next cycle, the first phase (*asking new questions*) is repeated (Bishop and Bruce 2002; Dewey 2018). In practice, these process steps reinforce each other and are intertwined. The phases of the process usually overlap and might not be present in every inquiry process. For example, reflection on a problem can lead to a reformulation of the problem or to a new question, and investigating solutions is closely linked to dialogue with others.

For example Whitehead's process philosophy whose educational thoughts were also strongly influenced by Dewey´s ideas (Whitehead 2016), describes inquiry-based learning as a three-fold rhythm of education: *Romance*, as a phase of openness, curiosity, and creativity; *Precision* as a phase of concentration, focus

and effort; and *Generalization* as a phase of reflection, understanding, and clarification. These cyclical and helical processes occur throughout the curriculum of one's life: through childhood and adolescence toward adulthood in a cyclical process. There are cycles within cycles in each period of life, and within each period of an educational experience. One cycle leads to another, as there is a craving for new adventures of thought (Hill 1988; Whitehead 2016). Learners are not seen as static substances to be shaped and formed but living organisms in the process of becoming. Whitehead sees the whole of reality as being a process and that process is the becoming of actual entities (Sherburne, 1966, Hill, 1988).

IBL is related to the concepts of problem- and project based learning (PBL) (Savery 2015), and the community of inquiry (CoI) (Bishop et al. 2004; Pappas 2000). While these approaches also informed the design of the instructional innovation, they cannot be described in detail here.

3.3 Material and Methods

3.3.1 Design of the Social Innovation Camp

From the beginning, the instructional innovation was designed in the sense of education through social entrepreneurship. This implied project-based and experiential learning (Dimova and Kamarska 2015; Lackeus 2015) along the phases of the inquiry cycle as described by Bruce and Bishop (2008) for two reasons. First, the phase model was fitted pragmatically into the first test run, which we based on the Kaufmann Foundation's Start-up Weekend Model. The Start-up Weekend model spans the course of a weekend. In addition to attendees, the event includes speakers, coaches, panellists, and sponsors and company representatives. Teams are working together beyond the start-up weekend to build a fully operating start-up (Silveira, Bizarrias, and do Carmo 2017; Nager, Nelsen, and Nouyrigat 2011). Second, Dewey's inquiry theory can be identified as the root of today's popular and more practical design thinking discourses in management for solving problems (Dunne and Martin 2006; Johansson-Sköldberg, Woodilla, and Cetinkaya 2013). At the same time, Dewey's theory is based on an epistemology of pragmatism and, thus, connects our endeavour to social discourses, social solutions to problems, in general to

the process of scientific investigations as well as to the discussion of engaged scholarship (Dalsgaard 2014; Dimova and Kamarska 2015; Boyer 1996).

To foster social innovation (learning), the theoretical phases of the IBL cycle were complemented by specific interventions and teaching methods.

Figure 3.1 shows an overview of the model (the detailed learning objectives and methods can be found in the appendix).

As mentioned above, all phases and categories, as described in the following sections, usually overlap, and do not proceed in a simple linear fashion. This also concerns the phases and aspects of the instructional innovation (for detailed descriptions see the appendix).

1st phase: Ask

The experiential learning process always starts with an individual's question or problem. The question or problem usually arises in an undefined situation. It cannot arise outside a community; in other words, it is always connected to a social context (Bruce and Bishop 2008). From Dewey's point of view, there is a significant pedagogical difference between responding to or actively formulating an own question (Harris 2014; Dewey 2013).

Accordingly, the camp participants are encouraged to bring their own project idea or social problem that they would like to work on. The aim of this first phase is to create a learning environment in which the participants can introduce themselves and their problems to one another and be inspired by the questions/problems of the emerging community, which consists of participants, coaches, and moderators. Furthermore, this first phase emphasizes the alignment of one's own interests and one's personality and identity. In this regard, the Ask phase overlaps with the second phase (Investigate). The first phase concludes with the representation of a successful (or failed) social entrepreneur who tells his or her own narrative in the field of social innovation.

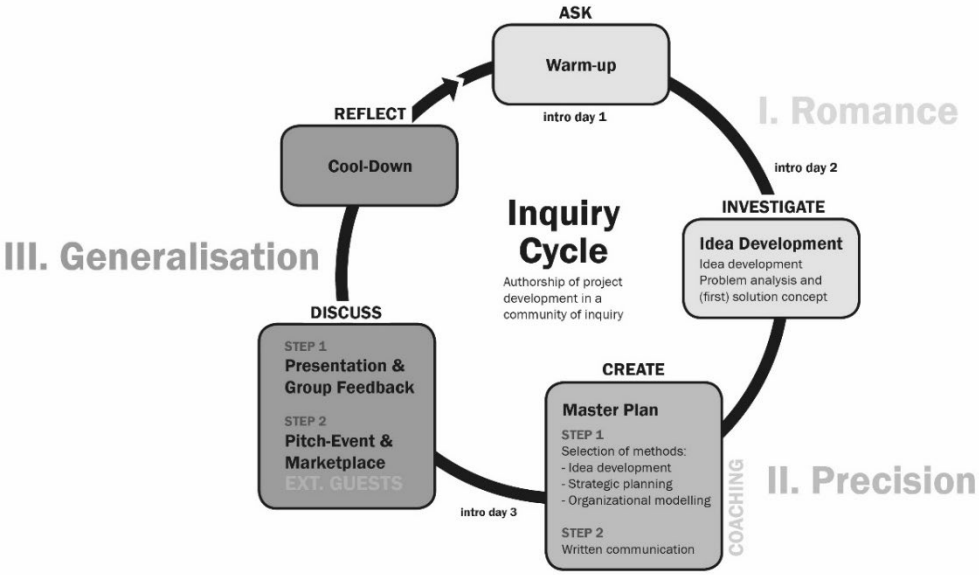

Figure 3.1 Camp Design Cycle based on the 'Inquiry Cycle' and the Rhythmic Stages of Self-Development (Bishop & Bruce, 2022; Whitehead, 2014, see also Hill, 1988). Source: Own representation

2nd phase: Investigate

Bruce and Bishop (2008) describe learning opportunities as essential prerequisite to find different, authentic, and challenging realities and problems for the Investigate phase. For this, they emphasize the necessary interaction with others, which also includes a moral dimension.

In the context of the camp design, this phase allows participants to formulate, analyze, and present one's own social problem question or project and the (possible) solutions in a more concrete way. To combine the results of the Ask phase with the Investigate phase, we use a combination of the problem tree / solution tree analysis and the Energo Cybernetic Strategy (ECS).

A problem tree provides an overview of known causes and effects of an identified problem. It defines the context in which the social-innovative project is to be implemented and sets the framework.

In the problem tree, the causes of the problem are formulated in a negative way (e.g., lack of knowledge, not enough money, etc.). By reversing the negative descriptions, the solution tree is defined. Through it the solution space and its possible value proposition is defined (Kurz, Kubek, and Schultze 2013).

The basic idea of ECS is to determine the personal and/or organizational bottlenecks, i.e., one's major challenges regarding the problem. By focusing on one's personal and/or team strengths on the one hand, and the needs of the target groups on the other hand, the method is supposed to lead to the solution that most naturally fits and that results in the largest value creation (Friedrich, Seiwert, and Geffroy 2006; Mewes 2000).

This phase of the social innovation camp ends with a Gallery Walk, in which the participants present the current status of their projects. With the so-called user story method, the participants put themselves in the shoes of (potential) addressees and learn to give feedback (Patton and Economy 2014).This approach aims at strengthening empathy between participants and community building.

3rd phase: Create

In this phase of the IBL, the focus is on the active, committed, hands-on learning process. This phase refers to the active creation of meaning, which also represents new collaborations or new roles in the design of the cooperative learning process (Bruce and Bishop 2008). We understand the Create phase as a conceptual phase.

In a first step, participants are given the opportunity to choose from three different methods according to their own interests and needs (see appendix for further details):

- a procedural idea development method: the meta-matching method was used to help participants find a tailored solution based on their (initial) problem solution or idea according to their interests and (personal) resources (for more details see Fuhrmann & Stock, 2006).
- a procedural strategic planning method: this method was developed based on the Gameplan by Sibbet (2011); it creates a visual portrait of the team and its resources, presents a clear target, and outlines strategies to reach short or long-term goals and objectives.
- a static organisation modelling method: building on the business model canvas by Osterwalder & Pigneur (2010), a template is provided to develop new or to document existing business models. The template includes the value proposition, infrastructure, customers, financial aspects, and the product.

During this learning and working phase, different coaches with different expertise (for example, business, politics, non-profit, science) are available to the teams to present, discuss, and reflect on their own concepts. Presentations in the context of social innovation (e.g., sustainable development goals, case studies, impact measurement, financing, or writing a business plan) complement students' competence development.

In the second step of the create phase, participants learn to formulate their project in one sentence, and write a short text in the form of, for example, a press release, social media post, text for a website or a letter for fundraising (depending on their target groups).

The written products as well as the presentations by the experts, and the discussions

with the coaches lead to the next phase (Discuss).

In the "Create" phase, it is necessary to focus on the exactness of formulation (Whitehead 2016). A careful selection of materials and good pacing are very important. This is the reason why different coaches are engaged in the "Create" phase to support the students.

4th phase: Discuss

Whitehead often laments the fact that in many schools and universities a paralysis of thought is brought on by aimlessly gathering knowledge that is never applied, or generalized (Hill 1988; Whitehead 2016). This is the reason why the Discuss phase in the IBL process emphasizes the necessity to participate in social arrangements and communities. Articulating one's own understanding and listening to others are both part of the Discuss phase. Through discussion or dialogue, the construction of knowledge becomes a "social enterprise" (Bruce and Bishop 2008, 711). In this context, the authors use the term "social enterprise" to describe the process of knowledge production and do not explicitly mean the building of an organization. They emphasize dialogue and exchange as important elements in the learning process, which are equally important not least for social entrepreneurial activities of all kinds (Bruce and Bishop 2008).

The participants receive coaching to help them to present their idea in a few minutes. The goal is to explain the idea to a specific target group (Rawal 2013). Afterward, the participants present their projects to potential external supporters

(e.g., financiers, public or private potential partners), who are invited exclusively for the final presentation. This presentation does not follow the format of well-known business plan competitions, which can have demotivating effects and often produce winners and losers (Brentnall, Rodríguez, and Culkin 2018). Instead, we use a self-designed marketplace and pitch method, which allows the participants to personally discuss their projects with potential supporters. The method helps student groups to reach personally relevant, binding agreements for the next steps of the project development. Ideally, this leads to a larger personal network, a greater ability to negotiate, and a sense of the necessity of the next steps.

5th phase: Reflect

Bishop and Bruce's (2008) final phase builds on Dewey's and Schön's idea of reflection when the student recognizes the situation in which he or she finds oneself, recognizes the problem involved, and continuously considers the possibilities for problem-solving (Bruce and Bishop 2008). According to Dewey, reflection is an "active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it and further conclusions to which it tends" (Dewey 1933, 9) . Reflection consists of "turning a subject over in the mind and giving it serious and consecutive considerations" (Dewey 1933, 3). Schön (1987/2017) describes this process using the concept "reflection-on-action", which explains how professionals solve challenges in their work through a kind of improvisation, which is improved by continuous practice (Schön 1987, 2017).

While reflection naturally plays a constitutive role in all phases of the inquiry process, in this phase, we emphasize the reflection-on-action by a brief review of the whole camp process, the results, and the next steps participants want to take to develop their endeavours. The community of inquiry (participants, moderators, and coaches), which was built during the camp weekend, is involved in the reflection regarding future opportunities, and the part that resources like friendships and partnerships can play for the participants. Participants are asked to articulate what they have learned and the next steps they want to take. Besides that, they are also inspired and motivated by supporting offers like opportunities for personal coaching, in-depth workshops, a tailor-made project study, online

resources, community events, participation in competitions, or other offers by institutional partners of the university.

As mentioned above, all five phases (ask, investigate, create, discuss and reflect) comprise a cycle that can be used to inform and guide educational experiences for all kind of learners (Bruce & Bishop, 2008; for detailed information about the design and learning goals in each phase see attachment).

3.3.2 Design-based Research: Evaluation of the Student Experience

The evaluation and further development of the social innovation camp was conducted as design-based research (DBR) which aims to integrate the development of innovative solutions to challenges in educational practice with the generation of scientific knowledge. “Design research is not defined by methodology. All sorts of methods may be employed. What defines design research is its purpose: sustained innovative development” (Bereiter 2002, 325). Based on scientific theoretical knowledge and carried out in real-life educational settings, learning and teaching theories are formed and tested and instructional tools are generated (Design-Based Research Collective, 2003; Euler, 2014). The concrete goal of design-based research is to formulate assumptions and test them during the design of a program. DBR is thus characterized by the development of innovative solutions for practical educational problems and should be accompanied by the acquisition of scientific knowledge (Gravemeijer and Cobb 2006). For our research, we followed the typical DBR process starting with the problem definition, reviewing the literature, developing the instructional innovation, iteratively testing the design, completed by formative evaluation and reflection (see figure 3.2). All phases are characterized by cooperation between educational practice and science. DBR is also often characterized by a plurality of research methods: the complex aims of DBR can often only be reached by combining qualitative and quantitative methods (Brahm 2017; Raatz and Euler 2017; McKenney and Reeves 2018).

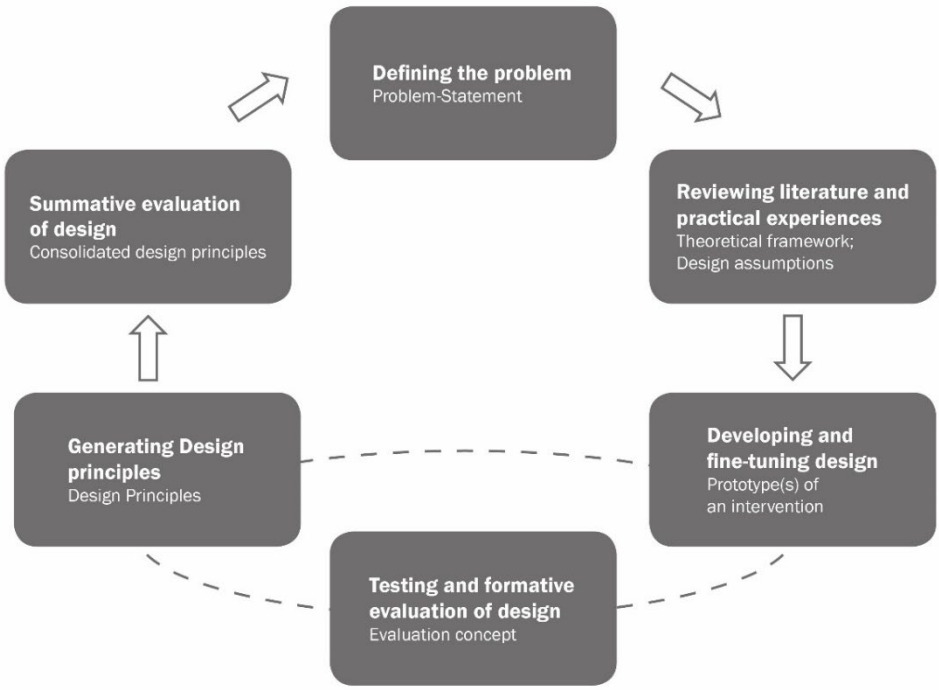

Figure 3.2 Design-based Research Cycle.
Source: Own illustration based on Euler, 2014, p.20)

3.3.3 Impact Assessment

In total, the instructional implementation was evaluated in three rounds (= prototypes). The first prototype in spring semester 2016 was only evaluated anecdotally (therefore called prototype #0 further below). The first and second prototypes in fall semester 2016 and spring semester 2017 were then evaluated systematically using multiple methods.

As was mentioned in the introduction, the camp aims to foster self-organized learning by implementing one's own ideas and projects. Overall, students should develop (social) entrepreneurial competences.

During each systematic implementation, students were asked to fill in a paper-and-pencil survey which included different open questions (such as chosen method in the Create phase, learnings, open questions, impact of on one's own social innovation). After each implementation, students were surveyed by an online questionnaire to capture their overall impression and learning outcomes

(motivation to found a social enterprise, learning outcomes, suggestions for improvement).

The following table gives an overview of the number of participants in each prototyping cycle and the data gathered:

Table 3.1 Prototypes and Survey Data

	Participants	Written surveys during camp	Written surveys after camp
Prototype #1	25	16	8
Prototype #2	18	13	13

To complement the students' perspective captured in the surveys, the coaches involved in the camp were asked about their impressions in group discussions with a narrative character. The focus was on the general question of what worked and what did not work and whether the offer of different methods was useful to the participants. The group discussions were video-taped and summarized.

As mentioned, the first cycle with prototype #0 was only evaluated anecdotally and resulted in practice-based experiences highlighting the different target groups, the various needs of the participants and their projects. This provided the impetus for the (further) scientific development and evaluation of a tailored offer for social innovators, social entrepreneurs, and active or transformative citizens. Prototype #1 already had a clearer target group and addressed so called "changemakers" (Alden-Rivers, Armellini, and Nie 2015; Banks 2014). During the camp, the participants were then asked to choose between the three different methods (see above).

3.3.4 Design Assumptions

To enable the transfer of the social innovation camp to other contexts, we developed different design assumptions as a further result of the formative evaluation of the camp design. These can serve other educators as starting points for the adaptation of the inquiry-based cycle to their needs. The assumptions serve as a structure to provide the results of our formative evaluation of the social innovation camp.

Assumption 1: Participants need different methods for conceptualizing their specific endeavours.

Building on the experiences of prototype #0 where only one method was offered for the *Create* phase, we assumed that different participants have different needs and preferences regarding their project (idea) development. Accordingly, we introduced the possibility to choose between three methods: a) Business Model Canvas (BMC), 2. Strategic Planning Canvas (SP), 3. Meta-Matching-Method (MMM) Canvas. With these methods, available in printed templates, it is possible to sketch models and ideas in a short period of time, and discuss and present the results to the group, or to third parties (Maurya 2012; Lackeus 2015). The methods specifically addressed the needs of different target groups: Founders who aim to develop their own holistic social business model, can use the static business model canvas (BMC). Participants from initiatives or project teams who first need to set a (strategic) goal plan with concrete milestones, make use of the strategic planning canvas (SP). For those who are at the very beginning of their project idea, the meta-matching-method (MMM) served as a guide to find the right project form to solve their defined problem or challenge.

As the qualitative and quantitative data of the formative evaluations show, the methods chosen by the participants themselves were considered (highly) suitable for their own projects (see figure 3.3). On a scale of 1 (strongly disagree) to 5 (strongly agree), the participants were asked whether the chosen method suited their project.

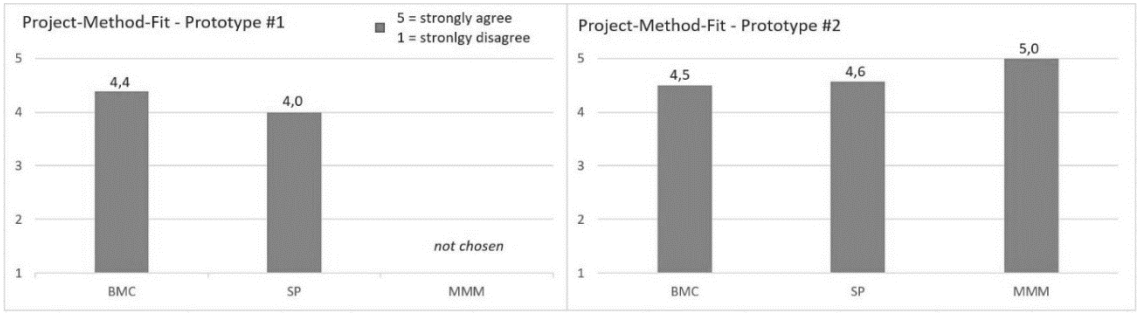

Figure 3.3 Project-Method-Fit (Protype #1, n=16; Protype #2, n=13). Quelle: Own representation.

For instance, students from the first prototype said that the BMC was “helpful to structure our project and to consider all important aspects”. It was helpful “to break down the big problem in single parts”. For students who used the SP, the method was useful due to the “step-by-step working/planning” as well as “writing down ideas on paper” and to “delegate tasks”.

In the first round, none of the initiatives used the MMM method, although some participants were only in the initial phase of developing their project idea. The formative evaluation revealed that the method was too complex although it was already graphically reflected. In consequence, the graphical representation as well as the oral introduction of the MMM method was simplified from prototype # 1 to prototype # 2. For students who used the MMM in prototype #2, the method was useful for a general “problem fragmentation”, the “step-by-step planning”, and the manual to “create a structure […] to get it to the point”.

In the third cycle, all three methods were used by different participants. In addition to a “brief and clear explanation” (coach #1) of each method, it seems above all that the graphical representation in the form of canvases supported participants in their choice of method.

As a result, we can emphasize design assumption 1: different participants bring different interests and needs concerning the development of their projects which are supported by the availability of different supporting methods.

Assumption 2: The endeavours of the participants have different forms and are in different development stages.

Different forms. The project ideas of the participants differed usually with regard to their form and their goals. The participants developed a wide range of activities

and social innovations in all design cycles. These included classical products, services, and organizational models, as well as projects planned as a one-off activity in the form of events or political campaigns. The projects covered classical non-profit as well as market-orientated and hybrid organizational activities. In this context, a coach mentioned that using the different methods in the create phase led to the ability “to reach all people and their project ideas” (coach #3). Additionally, the types of projects fit well under the umbrella of the UN Sustainable Development Goals (United Nations 2019). It did become obvious in the three cycles, however, that participants did not contribute ideas for leisure or cultural student initiatives (e.g., sports clubs, music, or theatre groups). This may be because the solution of a social problem was both communicated centrally in the call for the camps and fostered through the didactical design.

Different development stages. Organizational formation may be described as a process that includes multiple activities such as: team building, development of products, services, or procurement of critical important first resources (Andersson 2016). According to Jawahar & McLaughlin (2001), this early start-up phase of the organizational life cycle, is followed by the stages of growth, maturity, and revival, to which they attribute different characteristics and maturity levels. All camp participants were in a very early stage of the development of their projects. The earliest phase, the formative stage, can be described as the one that takes place before the formal formation of an organization, and which is also of great importance for the further course of organizational development.

With regard to the phase of the organisational life cycle and the phases in which the participants find themselves with their projects, we divided the participants into two groups: 1. Entrepreneurs, who, for example, would like to start new projects or organizations, or rather work on the “overall idea” (Andersson 2016) and, 2. the intrapreneurs who featured as participants from existing student organizations, initiatives, clubs, or start-ups in advanced organisational maturity. None of the "entrepreneurs" had outgrown the formative stage. Some of the "intrapreneurs" on the other hand, could be located in the growth or mature stage regarding the time of organisational existence. Both groups, however, had the same, or similar challenges with their projects, as described by Anderson for the

formative stage. This might be due to the young age of the students, and their short-time membership in their initiatives and student clubs.

The empirical results show that the participants developed different organizational forms and that their projects are represented in different life cycle phases. The results strengthen the idea of creative organizing which is e.g. articulated especially by Parker (2016).

Overall, our design assumptions highlight the importance of getting to know the target groups and the potential social innovations to adapt the overall pedagogical design accordingly.

3.4 Discussion and Conclusion

Overall, with this chapter, we contribute an instructional innovation to the literature on social entrepreneurship education with a particular focus on fostering social innovation, based on a theoretically founded method.

The “social innovation camp” is a two-day course which was developed and formatively evaluated in a design-based research process. With the inquiry-based learning approach as foundation, five phases to foster social innovation in the university context were developed and further refined in our research process. Throughout all phases of the social innovation camp, the idea of teaching “through entrepreneurship” in the sense of experiential learning is in the foreground, however, elements of teaching for entrepreneurship (such as the expert inputs in the Create phase) complement the design (Berglund and Verduyn 2018; Lackeus 2015; Hockerts 2018).

One of the strengths of the camp is that it appeals to a broad audience, independent of any social entrepreneurial school of thought to which the participants would assign themselves. It, thus, contributes clearly to strengthening a diverse changemaker community.

For us as lecturers, the participant-centered evaluation and the insights into the diverse problem solutions and forms provided great learnings. While in Prototype 0 the "earned income school of thought" was still in the foreground, it quickly became clear due to the participant structure that the camp, while maintaining such a mindset, would limit itself as a space of possibility for all kinds of social problem solving and, thus, oppose the idea of social innovation. In the social

innovation camp, students develop many alternative forms of organizations which, e.g., Parker (2018) articulates in his call for a “School of Organizing”. Thus, the fundamental question of whether only profit-orientated enterprises should be the subject of education and research in business schools, or whether alternative forms should also be considered equally, becomes apparent. In this vein, the chapter also contributes to the discussion about the overall purpose of entrepreneurship education in business schools and the idea of a „School of Organizing“ as discussed by Berglund & Verduyn (2018) or Parker (2018).

The social innovation camp also contributes to the discourse around sustainability in Management Education, especially regarding the inquiry-based learning approach. In order to reach a holistic and pluralistic educational approach towards sustainable development, peer- and self-organized, as well as project-based and transdisciplinary learning are central aspects (Sinakou et al. 2019).

While there are many strengths associated with the social innovation camp, we recognize some limitations. First, the question is where to integrate such a rather disruptive course design in the curriculum of a business school. It can clearly contribute to fostering social entrepreneurship and, at the same time, can also highlight students’ civic responsibility. As such, it could either become a core course for all students or could be integrated as an elective course. If it is integrated as an elective course, the second limitation is important to bear in mind: only students who already are inclined towards social innovation might choose such a course. Consequently, not all students would be reached, and the idea of social innovation is consequently limited to some self-selected students. As a third limitation, we identify the preliminary nature of our impact assessment. Although we employed the design-based research framework systematically to evaluate the student experience, and further developed our instructional innovation over the course of the prototypes which was accompanied by multiple research methods, we can nevertheless not prove that this method is more impactful than others. For better external validity, whether students develop (social) entrepreneurial skills by participating in such a course should be assessed. Ideally, such research should not only include self-selected students. A final limitation is the question of how to train instructors and coaches for such an innovative approach.

We particularly recommend lecturers who are not familiar with experiential learning designs to reflect on their own research practice using the inquiry-based learning approach to conduct the camp (for the first time) with this perspective in the next step. In this sense, IBL promises to be an efficient ’mental model’ or ‘mental script’ for promoting social innovation, education through entrepreneurship and accompanying research. Therefore, our procedural approach can serve as a starting point for social entrepreneurship lecturers, researchers, practitioners, (educational) entrepreneurs and innovators equally: first, for the development of an experiential-based learning design or programme for socially-innovative learning; second for investigating one’s own teaching on the basis of an educational design-based research design, as described, for example, according to the idea of the "science of teaching and learning" (Felten 2013); third, for one’s own and students’ social entrepreneurial (research) projects in the field of social innovation e.g. in the kind of "engaged scholarship" (Holland, Powell, Eng, & Drew, 2010; Howaldt, Domanski, & Schwarz, 2015). Furthermore, there are many similarities between (scientific) programme evaluation similar to the DBR approach and social impact evaluation (Tsotsotso 2021).

The procedural orientation from “entrepreneurship” to “entrepreneuring” (Steyaert 2007) includes the development of a broad range of organizations from non-profit organizations to for-profit enterprises and projects, which supplements the focus of “managing” with “organising”.

Overall, our instructional innovation contributes to the practice of SIE as well as to the literature regarding civic responsibility and education for sustainable development. With its compact design, the social innovation camp as a method can be adapted to different contexts and various educational institutions.

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3.6 Appendix

Appendix A) Cycle of Inquiry according to Bishop & Bruce (2002, p.710-711)

1.	**Ask** Ask reminds us that inquiry begins with a question or problem arising out of experience. The "indeterminate situation" Dewey referred to is part of that experience, including an individual's participation in a community. It is not something that can be delivered from "outside" this participation. This is why there is "an enormous pedagogical difference between answering someone else's question and formulating your own".
2.	**Investigate** Investigate relates to the varieties of experience possible and the many ways in which we become part of an "indeterminate situation." It suggests that opportunities for learning require diverse, authentic, and challenging materials and problems. Because experience includes interactions with others, there is also a moral dimension to inquiry. Similarly, physical, emotional, aesthetic, and practical dimensions are inherent.
3.	**Create** Create picks up the "controlled or directed transformation" part of Dewey's (1938/1991) definition. This term insists that inquiry means active, engaged hands-on learning. Inquiry thus implies active creation of meaning, which includes new forms of collaborating and new roles for collaborators.
4.	**Discuss** Discuss highlights an implicit part of Dewey's (1938/1991) definition, which is developed in great detail in his writing, especially in his later work. Although inquiry has a personal aspect, it is also part of our participation in social arrangements and community. The "discuss" aspect in the inquiry approach involves listening to others and articulating our own understandings. Through discussion (or dialogue), construction of knowledge becomes a social enterprise.
5.	**Reflect** Reflect tells us that it is the inquirer who recognizes the "indeterminate situation" and can say whether it has been transformed into "a unified whole." Reflection (later articulated in the work of Schön, 1983, and others) means expressing experience and thereby being able to move from new concepts into action. Reflection may also mean recognizing further.

Appendix B) Social Innovation Camp - Setting

<table>
<tr><td>Setting
(Context)</td><td>Learning duration
48h + plus reflection

Place
XYZ University</td><td>Accreditation
Key qualifications
(2 ECTS)</td><td>Registration possibilities
a) Event-Website
b) Social Media
c) Email
d) Intranet for students</td><td>Advertisement
a) University calendar (intranet),
b) Social Media;</td></tr>
<tr><td>Goals</td><td colspan="4">General goals

Step-by-step support during the creation or further development of your own project concept through moderation & coaching. Accompaniment in gaining the ability to think and implement own ideas and projects in the context of project-based learning in the community (empowerment).
Increase of the personal network of the participants and focused promotion of peer learning through targeted community-building (learning in community)
Interdisciplinary participants and learning environment
Including dedicated students from student initiatives and acting as representatives of the initiatives.

Generic learning goals

Acquisition of new methods and competences to turn an own project idea or social enterprise into reality.
Participants reflect the social-innovative idea / project from different perspectives.</td></tr>
<tr><td>Target groups</td><td colspan="4">Max. 25 Participants

Active and transformative citizens / Social entre- and intrapreneurs
Socially engaged students (e.g., members of student initiatives, clubs, social startups)
Young professionals (e.g., from companies, political or civil society organizations, social startups).</td></tr>
<tr><td>Used theories for design</td><td>Learning phases:
Inquiry Cycle
(Bruce & Bishop, 2008; Whitehead, 2016)</td><td colspan="3">Applied Methods:
Social Innovation Education – Toolbox (XYZ)</td></tr>
<tr><td></td><td></td><td>Energo Cybernetic Strategy (ECS) (Mewes, 2000, Friedrich et al., 2006)</td><td>Effectuation (Sarasvathy, 2008)</td><td>Learning Orchestra Canvas (World Citizen School);
Strategic Planning Canvas “Game plan” (Sibbet, 2011)
Meta-Matching-Method (Fuhrmann, n.d.)</td></tr>
</table>

Appendix C) Social Innovation Camp – Phases

1. Ask **Romance** Duration 1,5 h	Applied theories: ECS – (Mewes, 2000); Effectuation (Sarasvathy, 2008) Generic learning goals (questions): Who am I? Where do I come from? What I want? What can I? Who can support me during the camp and beyond?			
Learning units	**Instructional activities**	**Method, Social Arena, Materials**	**Participants activities**	**Learning goals:** creativity, oral communication, networking
Welcome & Introduction (ca. 30 minutes)	Welcoming participants, introducing the place, institutional context, the organizers and program	○ Personal introduction to moderator, co-moderator, coaches, organizational team ○ Using the metaphor of "learning journey of a round trip by plane" for learning social entrepreneurial thinking and methods through the weekend: a) chairs organized like a plane; b) corporate identity elements ○ Presentation by PowerPoint of the agenda of the camp including a short explanation of the methods which the participants can choose using in create phase 3.	-	Participants understand the upcoming two-day programme and align their expectations
Warm-up (ca. 45 minutes)	Community Building and Introduction of the methods	○ Participants getting to know their direct neighbour by interviewing 3-5 questions: I grew up in…/ A personal incisive learning experience was… /My message for the world is… ○ Moderator asks different questions and participants answering by positioning themselves in the room according to a moderated scale for each question: • Where do participants come from (country, region)? • Which field of study or expertise? • In which field of interest does the own project fit best (economic, social, ecological, political, cultural/aesthetic) • Who already started a (social) enterprise / initiative. • Who wants to make a living out of his project idea? • Who is looking for just a stimulating activity / career in an existing organisation? • Who has a clear idea what he/she wants to develop, who not? • Who can imagine becoming a member of another team via the weekend? ○ Ticket wall: Participants filling a ticket canvas which includes • Name and field of study / expertise • Existing project (Initiative, Social Business, Startup-Idea) • Expectations for the weekend • Personal vision in keywords or a picture • Personal photo of the participant (made by staff)	Participants take part and fill the ticket.	Participants getting to know each other and what to expect and which kind of personalities and knowledge are in the room. They assure oneself interests, biography and personal vision for life.

2. Investigate **Romance** Duration: 4h	Applied approaches: Entrepreneurs as role models (Brockhaus, 1982), ECS (Mewes, 2007), Problem-solution tree analysis, User Stories (Patton (2014) Generic learning goals (questions): • Which problem do I want to solve? Which solutions currently exist? What is a possible solution I want to work on? • Where are my strengths? Which emergency do I want to solve? Which specific target group(s) do I want to reach? What added value can my solution promise? What makes the solution unique?			
Learning units	**Instructional activities**	**Method, Social Arena, Materials**	**Participants activities**	**Learning goals:** creativity, critical thinking, oral communication
Inspiration & Motivation		Keynote of an established, successful social entrepreneur / practitioner a) Approx. 30 Minutes Input about own life and career path, strengths, weaknesses, own business development etc. Approx. 30 minutes discussion with participants and the moderator about the business model, stages, personal visions, etc.	Listening and asking questions	Reflection about the own project idea, possible barriers, own belief, staying power;
Idea development problem analysis creation of solution	Instruction of the problem-solution method combined with an analysis of own strengths and the need in the world (ECS-Method)	Participants applying the method (canvas): 1. Step: Problem-solution fit and environmental analysis of existing solutions 2. Step: Energo Cybernetic Strategy (ECS) Concentration of the forces on own strength potentials a) Concentration on a specific target group b) Deep thinking about the problem solution and development of good market conditions to solve the core problem c) strive for market leadership	Participants filling the canvas	• Defining a concrete problem they want to solve and work on at the weekend • getting to know own strengths in the context of the project • learning to focus on specific target group and problem solution.
Presentation of project status	Moderation of feedback (Gallery walk with user story method)	Presentation of preliminary results including peer-feedback by other participants	Presenting their first results	Participants articulate their project idea in their own words to the audience. The listeners practice empathic thinking and the formulation of user stories

<table>
<tr><td>3. Create
Precision

Duration: 5h</td><td colspan="4">Applied approaches:
• Business Model Canvas (Osterwalder & Pigneur, 2010), Strategic Planning Canvas (Sibbet, 2011), Meta-Matching-Method Canvas (Fuhrmann, n.d., 2017).
• Skill-based development by coaching (Kutzhanova, Lyons, & Lichtenstein, 2009)
Generic learning goals (questions): Students develop their project idea according to the chosen method with focus on business model, strategic planning or method search.</td></tr>
<tr><td>Learning units</td><td>Instructional activities</td><td>Method, Social Arena, Materials</td><td>Participants activities</td><td>Learning goals: designing, written communication, collaboration</td></tr>
<tr><td rowspan="3">Master Plan
Step 1</td><td rowspan="3">Brief introduction to three different methods with a music metaphor
• Business Model
• Strategic Team Planning (Band)
• Idea development: Meta-Matching-Method</td><td>1. Business Model Canvas (Learning Orchestra)
Static perspective

Target group
Individuals or teams who want to start an own social business or financially sustainable organization to solve a problem in a long run perspective by producing and/or selling goods or services.</td><td rowspan="3">Participants choose one of the three methods and work on the canvas. They ask proactively for help from coaches / professional experts (or get proactively asked)</td><td>Transferring the first own social business / or organization idea into the business model template which contains the four most important building blocks: Customer / User, supply, infrastructure and financial sustainability.
Development of an understanding of these building blocks of an organization and the complex interaction of these:
• From the inner world (team, partners, activities, resources) via channels and customer relationships to the outside world (target groups and society) through taking into account the environment (market).
• Through an organizational solution that promises to solve the problem(s) sustainably and creates social added value and in which the focus of the enterprise (core business, value proposition) is blurred taking into account a sustainable finance model that represents revenue and expenditure.</td></tr>
<tr><td>2. Strategic Planning Canvas (Band)
Procedural perspective

Target groups:
Member of initiatives or teams</td><td>Developing project processes:
a) Setting the project or organizational development goals
b) Learning to prioritize goals by planning the processes steps (milestones)
c) Identifying and balancing the feasibility between the different expected challenges, the key success drivers and the existing resources (manpower, hardware, know-how) in each step.</td></tr>
<tr><td>3. Meta-Matching-Canvas
Procedural perspective
Target group:
Idea creators / developers, who are still in an early stage of their project development. Nascent facilitators, coaches, moderators, who are interested in plurality of possible methods.</td><td>Development the own project idea in a still undefined and early stage of development:
(1) “Mapping” the own project idea (case) according to purpose, actors (stakeholders) and the search for the real problem underlying the case.
Gaining confidence to the possible next process steps of
(2) “Profiling” (openness to possible procedures),
(3) “Matching” the case with (an) appropriate method(s) out of high number of possibilities and finally
(4) “Re-designing the first “mapping” from stage one.</td></tr>
</table>

3. Create **Precision** Duration 1,5 h	Applied approaches: Written communication			
Learning units	**Instructional activities**	**Method, Social Arena, Materials**	**Participants activities**	**Learning goals:** written communication

Master Plan
Step 2
Written communication (Postings)
	Brief introduction to (corporate) communications	How to write a
		• Basic sentence:
		  ○ Vision/Mission
		  ○ Organization
		  ○ Offer of service / product
		• press release
		• social media post
		• text for website
		• cover letter for a person, fundraising etc.
			Participants choosing 1 or 2 methods,
			writing their story, and presenting it to the participants.
			Getting short feedback from moderator and coaches.
				Formulating the “own project story” through different channels according to the target groups (stakeholders).

4. Discuss **Generalisation** Duration 2,5 h	Applied approaches: Oral presentation, discussing and networking			
Learning units	**Instructional activities**	**Method, Social Arena, Materials**	**Participants activities**	**Learning goals:** oral communication, collaboration;
Step 1 Communication: *"Presentation" & Group Feedback*	Brief introduction to an "elevator pitch"	Short description of an idea, product, company, or oneself that explains the concept in a way such that any listener can understand it in a short period of time. This description typically explains who the product/company is for, what it does, why it is needed, and how it will get done by the AIDA and/or Me-You-We method: • A- Attention • I – Interest (Me, You) • D – Desire (You) • A- Action (We)	1. Step: Presenting the own each other. 2. Step: Getting support / feedback by coaches. 3. Step: Presenting to all participants and get group feedback	Improving of oral presentation skills (through dialogue).
Step 2 Communication: *"Pitch-Event & Marketplace"*	Introducing the marketplace method and the signing of agreement to all (ext.) participants	Marketplace – Method: 1) Presenting the project (Pitch) 2) Making agreements e.g. on an exchange of a next meeting, knowledge, manpower, hard- and software etc.	Presenting the "pitch" to external guests / supporters. Making agreements with (potential) supporters.	Presenting the idea to unknown people and signing agreements. Networking: Exploring and building personal relations with others.

5. Reflect **Generalization** Duration 1,5 h	Applied theories: Reflection and next steps of the project management			
Learning units	**Instructional activities**	**Method, Social Arena, Materials**	**Participants activities**	**Learning goals:** group reflection, written feedback, critical thinking
Cool-down	Explaining possible next steps	Presentation of the possibilities of personal coaching after the camp - to create pitch-deck, - business plan, - online-tools - or teambuilding over the next 3 months.	Getting motivation to go on with the project after the camp.	-
Cool-down	Introducing the cool-down method		Answering the sentences: • I take especially away from the weekend …. • As next steps, I will … •	Consciousness about the own take-aways, challenges and next steps and also these of other participants
Written feedback	Sending evaluation form by email not more than 1 day later.	Evaluation form including questions of learning, improvements, moderation of the camp, atmosphere, improvements.	Filling in the form	Reflection on what has been done

4 Responsible Management Education: Social Entrepreneurial Competences of Civically Engaged Students

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Abstract

Student-led initiatives are an important measure in responsible management education as they provide a platform for students' social and environmental engagement. Not much is known, however, about the kind of competences that students develop when engaging in such initiatives. Our study investigates a) whether engaged students differ from students who are not engaged in initiatives and b) if so, what kind of skills or abilities they show while being involved in extra-curricular initiatives. We further distinguish between students involved in sustainability-orientated groups, student unions, career-orientated groups, cultural groups, political and religious groups.

Our data consists of a comprehensive convenience sample of 1000 students from 13 different higher education institutions in Southern Germany. The results show significant differences of engaged students compared to their non-engaged colleagues as well as between different kinds of groups. Members of sustainability-orientated groups are better equipped with social entrepreneurial competences. Our study contributes to research on extracurricular activities which are an important pillar for responsible management education.

Keywords

Social Entrepreneurship; Social Innovation; Extra-curricular Activities; Experiential Learning; Sustainable Development; Responsible Management;

4.1 Introduction

In light of the world's important development areas, as exemplified by the United Nations SDGs, the biggest challenge today seems to be how to prepare future business leaders for the on-going social and environmental challenges such as globalization, climate change, demographic shifts, inequality, and so forth (Herrmann & Rundshagen, 2020; Parkes et al., 2020; Rusinko, 2010). Recent discussions regarding the future of management education (Khurana, 2007; McDonald, 2017; Pattit et al., 2018), raise the important question how future leaders can acquire the necessary competences to adequately meet these global challenges.

For example, Moosmayer et al. (2018) identified a normative paradox in the practiced responsible management education. In their view, most business educators want to develop social values and ethical habits through the education provided, but at the same time they build on theories with normative underpinnings that readily undermine those very ambitions (Brahm & Jenert, 2019; Dierksmeier, 2016; Moosmayer et al., 2018). In this regard, Gosling and Mintzberg (2004) also argue that management cannot only be learned in a common university classroom environment because "[…] management is neither a science, nor a profession, nor a combination of functions. Management is a practice—it has to be appreciated through experience […]" (p. 19).

In terms of a holistic education, various authors therefore propose a pragmatic approach to responsible management education (Laasch & Moosmayer, 2017; Moosmayer et al., 2018; Pirson, 2020). According to Moosmayer et al. (2018), confronting students with learning situations that require dialogical reflection and practical problem solving through interdependent social inquiry, seems helpful. This kind of responsible management education is found in learning programmes of (social) entrepreneurship education (Ratten & Jones, 2021) or sustainability in management education (Kurucz et al., 2014). Such programmes focus on the role of the students as "changemakers" (Alden-Rivers, Nie, et al., 2015), socially conscious entre- and intrapreneurs (Parris & McInnis-Bowers, 2017; Siqueira et al., 2015), socially responsible leaders (Cauthen, 2016), or responsible world citizens (Gibson et al., 2008; Gohl, 2018; Maak & Pless, 2009; Moosmayer et al., 2018).

In recent years, constructivist understandings of learning processes have increasingly come to the fore where learning is seen as an active process of constructing than merely acquiring knowledge. This is particularly evident in the contemporary discourse

on entrepreneurship education (Mueller & Anderson, 2014) and current discussions on how (social) entrepreneurship can be understood within management education as well as in society in general (Litzky et al., 2010; Ratten & Jones, 2021). According to the European Commission's definition, entrepreneurship education encompasses "all educational activities that seek to prepare people to be responsible, enterprising individuals who have the skills, knowledge and attitudes needed to prepare them to achieve the goals they set for themselves to live a fulfilled life" (Curth et al., 2015, p. 3).

Responsible management learning and the constructivist perspective in entrepreneurship education, emphasises the role of 'responsibility' on a multidimensional level (Mueller & Anderson, 2014). Learning settings in which responsibility is practiced in the ways described are found in extracurricular activities of voluntarily engaged students in and through their initiatives, clubs, and groups. Such extra-curricular activities—usually located outside of the students' formal curriculum at higher education institutions (HEI)— provide therefore important opportunities for (social) entrepreneurship education and responsible management learning (Bodolica, Spraggon, & Badi, 2021; Igwe, Okolie, & Nwokoro, 2021). Accordingly, this chapter focuses on student-led initiatives.

At many universities, student-led clubs or initiatives form a platform for responsible management practice and social inquiry (Pittaway et al., 2011). Such initiatives are best portrayed as "communities of practice", defined as "groups of people, who share a concern or passion for something they do, and they learn how to do it better as they interact regularly" (Borges, Cezarino, et al., 2017; Wenger & Wenger-Trayner, 2015, p. 1). Student initiatives are also described as institutional innovators (Drupp et al., 2012), as entrepreneurial learning places (Pittaway et al., 2011), or as training opportunities for social responsibility (Keser et al., 2011; Wihlenda, 2018; Youniss & Yates, 1997). Furthermore, many student initiatives, implicitly or explicitly, contribute to the idea of the common good (Etzioni, 2014; Habisch & Schwarz, 2010).

Quite a few initiatives and their activities fit well under the "umbrella" of the UN Sustainable Development Goals (SDGs) (United Nations, 2019; Author, 2018). Depending on the focus of the student initiative, they may address different sustainable development goals such as climate change (SDG 13), sustainable consumption (SDG 12), inequality (SDG 10), or peace and justice (SDG 16).

Often student initiatives appear explicitly as education providers. They organize e.g., events like seminars, workshops, reading groups, lecture series or study simulations etc. These formal learning settings are often prepared in non-formal (peer) learning settings in the form of meetings, discussions or general project organization or management activities of all kinds. Therefore, engagement in student initiatives often represents an informal, community-based and interdisciplinary learning environment for students.

The importance of student (extracurricular) engagement as a place of learning are often emphasized (Bodolica et al., 2021; Siqueira et al., 2015). Nevertheless, empirical evidence is still lacking about the specific skills and attitudes engaged students are developing as a result of their engagement in their specific learning environments. Moreover, little is known about the differences between various types of student initiatives and their importance for responsible management practice. Accordingly, our research addresses this research gap by

a) contributing to the discussion of extracurricular activities and how these relate to (responsible) management education and (responsible) entrepreneurship education.
b) analysing the (social) entrepreneurial competencies of participants in student initiatives, above all, in sustainability-orientated initiatives in comparison to other initiatives.

Overall, our research supports the inclusion of sustainability in management education by relating sustainability-orientated student initiatives to social entrepreneurship.

In our research, we first ask if the competences of those students who are engaged in such initiatives, differ from their non-engaged colleagues. In a second step, we also analyse differences pertaining to various types of student's engagement.

4.2 Literature Review

Extra-curricular activities and how they contribute to management and entrepreneurship education have rarely been described in the literature. Only in recent years have studies appeared that demonstrate the role of extracurricular engagement in responsible management education and entrepreneurship education and its

contribution to sustainable development in general (Bodolica et al., 2021; Borges et al., 2017; Igwe et al., 2021).

In the last 20 years, several curricular integrated social entrepreneurship programmes have emerged in different institutional settings (Mirabella & Young, 2012). Within these programmes, social entrepreneurship and social innovation represent related concepts, so much so that they are often even used synonymously (Dacin et al., 2011). Thereby, however, both terms tend to be used in a rather ill-defined way (Rivers et al., 2015).

In our study, we follow the 'Social Innovation School of thought' as advocated, for example, in the context of education by Alden-Rivers et al. (2015) and Kalemaki et al. (2019) (Defourny & Nyssens, 2010). Mulgan (2012) defines social innovation as follows: "It covers new ideas (products, services, models, markets, processes etc.) that simultaneously meet socially recognized social needs (more effectively than existing solutions), and create new social relationships or collaborations, that are both good for society, and enhance society's capacity to act" (Mulgan, 2012, p. 22).

The approach to SIE described by Alden-Rivers et al. (2015a) is based on three learning theories (critical learning, transformational learning, and epistemological development), and focuses on social problem-solving skills, for which the authors developed a set of fourteen "changemaker attributes" (Alden-Rivers et al., 2015b, p. 253). The authors perceive SIE "as the complex process of developing graduates who aspire to change the world for the better, regardless of career path. These individuals are knowledgeable, socially and ethically responsible, as well as emotionally intelligent innovators, leaders, and communicators" (Alden-Rivers et al., 2015a, p. 3), and consequently, the idea of SIE is aligned with responsible management and entrepreneurship education. Both "social innovation and entrepreneurship refer to the process of generating new ideas that provide social benefits and drive value for the society" (Bodolica et al., 2021, p 1).

In spite of the fact that a broad stream of research on entrepreneurship and entrepreneurial competences exists (Arafeh, 2016; Bacigalupo et al., 2016; Boyles, 2012; Driessen & Zwart, 2006; Lackéus, 2013; Man et al., 2002; Mitchelmore & Rowley, 2010; Wu, 2009), to date we find hardly any research on social entrepreneurship in the context of student initiatives. One notable exception is the recent qualitative case study by Bodolica and colleagues (2021) who document the experience of a student who was involved in student-led extracurricular activities in his

university. Although this single case study provides valuable insights into the interaction of student initiatives and the development of both a sense of community and of entrepreneurial competences, the question remains open which competences students develop when being actively involved in student initiatives.

Thus, in the following sections, we also expand our literature analysis to more general entrepreneurship education. “There is a general consensus that entrepreneurial competences are carried by individuals, who begin and transform their businesses” (Mitchelmore & Rowley, 2010, p. 97). Different entrepreneurial skills are needed in the different phases of an entrepreneurial venture, relevant to both self-employment and within established organizations. Moreover, in an educational context, developing entrepreneurial skills supports students in practicing what they learn, and applying the knowledge they acquire (Moberg et al., 2014).

With reference to a competence framework, Mitchelmore and Rowley (2010) highlight the importance of entrepreneurial competences, management competences, relationships, and conceptual competences. In comparison, Arafeh (2016) suggests the use of the “soft-computing-based entrepreneurial key competences model” (SKECM), which is based on three clusters, namely performance, planning, and strength (based on McClelland, 1962). The EU commission also perceives entrepreneurship competences as crucial in the context of lifelong learning. Entrepreneurial competence is defined as “the capacity to act upon opportunities and ideas, and to transform them into values for others. It is founded upon creativity, critical thinking and problem solving, taking initiative, perseverance, and the ability to work collaboratively in order to plan and manage projects that are of cultural, social, or commercial value” (European Commission, 2018, p. 6).

Following the lines of Boyles´ (2012) KSA approach, Lackéus (2013) developed a framework for entrepreneurship competences defined as “knowledge, skills and attitudes, that affect the willingness and ability to perform the entrepreneurial job of new value creation; that can be measured directly or indirectly; and that can be improved through training and development” (Lackéus, 2013, p. 1). The European Assessment Tools and Indicators for Entrepreneurship Education (ASTEE) project also makes use of Boyles’ (2012) KSA approach—as also used by Lackéus (2013), which aims to develop instruments to measure the effects of entrepreneurship education (Moberg et al., 2014). For that purpose, the ASTEE project developed a questionnaire which, after several pilot tests, was presented to 4900 young people.

Based on the data gathered, five dimensions were identified as being of importance for entrepreneurship education: “skills, knowledge, mindset, connectedness to education, and connectedness to future career” (Moberg et al., 2014). These general skills were subsequently further divided into six sets of sub-skills: creativity, planning, financial literacy, marshalling of resources, managing ambiguity, and teamwork. Obviously, these sub-skills comprise both cognitive and non-cognitive competences; accordingly, they are more or less easily taught (Moberg et al., 2014), and turned out to be highly effective. “The tests showed that pupils and students who demonstrate entrepreneurial behaviour or who have experience with entrepreneurship education, also have significantly higher levels in each of the constructs” (Moberg et al., 2014, p. 37). Based on the work by Moberg et al. (2014), we will investigate the skill set identified in their study.

Another important empirical approach is demonstrated by Peterman and Kennedy´s (2003) study on the effects of (participation in) an entrepreneurship program, on the usefulness and feasibility of founding an enterprise. Based on a pre/post-test design, the authors analyse participants in the “Young Achievement Australia (YAA) enterprise program” as well as a control group of non-participants. For rating the effects of the YAA, the authors refer to the Shapero model (Shapero, 1985), which assumes that founding an enterprise, above all, depends upon three factors: the attractiveness of founding, the feasibility, and the propensity to act (Peterman & Kennedy, 2003). Moreover, Shapero also suggests that a person’s attitude toward entrepreneurship, would be indirectly influenced by his or her prior exposure to entrepreneurship, through prior work experience or the existence of role models (Krueger & Carsrud, 1993; Peterman & Kennedy, 2003; Shapero, 1985). Regarding the intention towards entrepreneurship, the importance of *self-efficacy* is also particularly emphasized (Shapero, 1975). Peterman & Kennedy’s (2003) study, found that the participants of the YAA programme showed a higher perception of attractiveness and feasibility, compared to the control group. This could imply that practical experience supports the perception of feasibility, and consequently strengthens the self-efficacy of students.

To the best of our knowledge, the only empirical study concerning the competences developed in socially, sustainability, and civically orientated initiatives, was conducted by Hockerts (2017). Based on an existing model by Mair and Noboa (2006), Hockerts investigated students’ intentions for social entrepreneurial initiatives. According to Mair and Noboa (2006), “[…] intentions to set up a social venture develop from perceptions

of desirability, which are affected by emotional and cognitive attitudes (empathy and moral judgment), and from perceptions of feasibility, which are instigated by 'enabling' factors such as self-efficacy and social support" (Mair & Noboa, 2006, p. 126). Consequently, their model conceptually distinguishes between four different intentions of social entrepreneurship: "empathy as a proxy for attitudes toward behaviour, moral judgment as a proxy for social norms, self-efficacy as a proxy for internal behavioural control, and perceived presence of social support as a proxy for external behavioural control" (Hockerts, 2017, p. 106). Based on this model, Hockerts (2017) tested his hypotheses with three different samples: students from a Scandinavian business school, a random sample of SurveyMonkey respondents, and participants in a course on social entrepreneurship. The results indicate that persons who already have experience with social problems show a higher degree of entrepreneurial intention (ibid.). Furthermore, entrepreneurial self-efficacy and perceived social support are connected to the intention to found an enterprise; Hockert's research, also consequently suggests that service learning in social organizations, could enhance the inclination to (social) entrepreneurship (ibid.).

In the light of the previous research, we suggest the following hypotheses:
Research hypothesis A: Students participating in student-led initiatives show a different set of specific skills and attitudes when compared with those who are not participating in student-led initiatives.
Research hypothesis B: Students develop significantly distinct competences when participating in different types of student-led initiatives.

4.3 Methodology

For this research, a quantitative study was conducted using an online questionnaire that was accessible from June to December 2018; to reach as many students as possible, the questionnaire was sent to seven universities. At two of the universities, the student e-mail provider was used to send the survey invitation to all students enrolled at these universities. In addition, to specifically address students participating in student initiatives, e-mail addresses of student clubs were searched, and invitations sent to these addresses as well.

Sample. In total, 1006 students from 13 different HEIs in Germany and Switzerland, replied to our survey. The HEIs were addressed by mailing or Facebook postings. As not all of the registered students were addressed, it is difficult to determine the response rate. The sample is a convenience sample which is not representative of students in Germany; it is, however a rather large sample. Of the 1006 respondents, 645 (64% of our sample) reported being engaged in a student initiative. On average, participants were 22.87 years old—with the youngest respondent being 18 and the oldest 56. About 62.3 % of the students in our sample are female. The participants study a wide range of topics. For example, those who are engaged study business and economics (22.6 %), social sciences (11.9 %,), humanities (18.6%) and natural sciences (22.9%). The students are in different stages of their studies with about one fourth being in the first, second and third year respectively and the final one fourth, studying in year 4 and beyond.

For the categorisation of student initiatives, we were guided on the one hand by the list of different engagement areas in the German Volunteer Survey (Schmiade et al., 2014) and on the other hand by the typical university engagement structures (Stuart et al., 2011).

In line with the various Sustainable Development Goals of the United Nations, we understand not only ecological engagement but also commitment to the common good. Accordingly, we include the category of sustainability-orientated initiatives, for example, human rights initiatives, environmental and animal protection initiatives, climate change initiatives, initiatives for equal opportunities and educational justice, democracy promotion initiatives equally. Furthermore, we distinguish initiatives, clubs and groups that are tied to university politics and typically have voting rights within the university or faculties (e.g., the student councils, student parliaments, etc.). We distinguish political groups that typically maintain close ties to political parties and sometimes participate in student parliaments. A further category is formed by cultural groups, to which we include cultural and music associations or leisure initiatives such as travel and hiking groups. In addition, we distinguished career-orientated groups, such as consulting or business associations that students use to establish contacts with future employers. Our final category was made up of religious groups, such as Christian or Muslim university groups. Of the students, involved in student initiatives, the largest single group of students, roughly one fifth (22% of the 645), participated in a student union (e.g., council, committee, parliament), the second largest, roughly one

sixth (16.8%), was engaged in a sustainability-orientated group (e.g., human rights, sustainability, democracy, inequality). Smaller groups included participants in sports or cultural clubs (e.g., music, art), religious groups, or political initiatives.

Data analysis. All analyses were conducted using SPSS (Version 24.0.0.0). The data were first analysed regarding the reliability and validity. In a second step, t-tests were conducted for group comparisons, and finally variance analyses and regression analyses were conducted.

Valid and reliable scales from the literature were applied, to investigate students' entrepreneurial competences.

Given the paucity of instruments regarding social entrepreneurial skill development at the time of our study and to our knowledge still today, we used the ASTEE entrepreneurial competence scales (Moberg et al., 2014), as well as the instruments for entrepreneurial intention (Peterman & Kennedy, 2003) and social entrepreneurial intention (Hockerts, 2017).

In the first part of the survey, the items of the "ASTEE Measurement Tool–Tertiary level" were used, namely: *creativity*, *financial literacy*, *managing ambiguity*, *marshalling of resources*, *planning*, *entrepreneurial mindset,* and *(social) entrepreneurial attitude* (Moberg et al., 2014, p. 45). In our study, some constructs of the ASTEE questionnaire could not be replicated in our study. In particular, due to limited reliability, the scales *marshalling of resources* and *planning* had to be slightly adapted and were combined with the scales *preparing an entrepreneurial endeavour,* and *cooperation*. These scales now form the entrepreneurial skillset investigated in our study.

The second part of the questionnaire captured the determinants of *social entrepreneurial intentions* developed by Hockerts (2017), namely *prior experience*, *empathy*, *moral obligation, social entrepreneurial self-efficacy,* and *perceived social support*. These constructs were used as a proxy for students' attitudes towards social entrepreneurship.

Finally, students' *perceived desirability* of starting an (social) enterprise, based on Peterman & Kennedy (2003), was assessed as an approximate indicator for students' intention.

The following table shows the scales, a sample item for each scale, and Cronbach's alpha as an indicator of reliability.

Table 4.1 Sample Item and Reliability of Research Instrument

	Scale	Sample item	Cronbach's α
Social Entrepreneurial Intentions (Hockerts. 2017)	Prior Experience*	I know a lot about social organizations.	.717
	Empathy	I feel compassion for marginalized groups	.829
	Moral obligation	We are morally obliged to help disadvantaged people.	.827
	Self-efficacy	Solving societal problems is something each of us can contribute to.	.727
	Perceived social support	If I planned to address a significant societal problem people would back me up.	.768
Entrepreneurial Intentions (Peterman & Kennedy. 2003)	Perceived desirability*	I would love doing it.	0.716
Entrepreneurial Mindset Mindset. attitude (ASTEE. 2014)	Social Entrepreneurial Attitude	In general. starting a social enterprise is useful.	.803
Connectedness to labor market (ASTEE. 2014)	Innovative Employee	I would like to have a job that allows me to solve problems in a new way	.757
Entrepreneurial Skills (ASTEE. 2014)	Creativity	I am able to come up with new ideas.	.838
	Financial literacy	I am able to control the cost for projects	.787
	Managing Ambiguity	I am able to manage uncertainty in projects and processes	.753
	Preparing an entrepreneurial endeavor*	I am able to formulate project goals.	.827
	Cooperation*	I am able to network	.807

* Slightly adapted due to reliability issues in comparison to the original scale of the respective authors. Items were measured on a Likert scale from 1 to 7 (do not agree at all – fully agree).

4.4 Results

The research hypotheses were tested, using different analyses. Table 4.2 shows the correlations of all relevant variables for the research hypotheses.

Hypothesis A. To determine the differences between students engaged in student initiatives and those who are not engaged, we ran several t-tests for independent groups.

Table 4.2 Correlations between Relevant Variables (n=1000)

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
Social Entrepreneurial Intentions (Hockerts. 2017)													
Prior experience	1												
Empathy	.264	1											
Moral obligation	.214	.581	1										
Self-Efficacy	.385	.352	.320	1									
Perceived Soc. Support	.269	.314	.281	.355	1								
Entrepreneurial Intentions (Peterman & Kennedy. 2003)													
Perceived Desirability	.169	.185	.115	.298	.289	1							
Entrepreneurial Mindset Mindset, attitude, core-self-evaluation (ASTEE, 2014)													
Soc. Entrepr. Attitude	.287	.433	.417	.310	.332	.268	1						
Connectedness to labour market (ASTEE, 2014)													
Innovative Employee	.177	.208	.207	.359	.281	.371	.209	1					
Entrepreneurial Skills (ASTEE, 2014)													
Creativity	.248	.130	.103	.380	.307	.351	.101	.596	1				
Financial Literacy	.166	-0.038	-0.038	.187	.167	.249	0.032	.238	.475	1			
Managing Ambiguity	.225	0.056	0.046	.308	.230	.293	0.050	.457	.634	.496	1		
Prep. entrepr. endeav.*	.255	.081	0.043	.307	.264	.311	.091	.414	.645	.604	.642	1	
Cooperation *	.257	.220	.115	.337	.320	.311	.195	.374	.518	.351	.516	.571	1

The results show differences for the constructs of *self-efficacy*, *moral obligation*, *perceived social support*, *creativity*, *financial literacy*, *managing ambiguity*, *cooperation*, *preparing an entrepreneurial endeavour,* and *innovative employee*. In each of these aspects, engaged students self-rate their competency higher than those who are not engaged (see Table 4.3). For instance, students who are engaged in student initiatives rate their own self-efficacy and moral obligation very high (Mean = 5.485 and SD = 1.112; Mean = 5.688 and SD = 1.129, respectively), while those students who do not take part in such extra-curricular activities, rate the determinants of social entrepreneurial intentions, as Hockerts (2017) calls them, significantly lower.

In comparison, for the dimensions *prior experience*, *empathy,* and *social entrepreneurial attitude,* no differences between the different student groups could be found. Interestingly, although a significant difference was found regarding students' self-rated competence to prepare an entrepreneurial endeavour (albeit with a small effect size of Cohen's d = .327), there is no significant difference regarding the perceived desirability of social entrepreneurship between the two groups (which could be seen as an indicator for students' future intention to found a (social) enterprise. As significant differences can be found for most of students' skills, as well as for the determinants of social entrepreneurial intentions, hypothesis A can be confirmed. Accordingly, our results provide initial evidence that there are significant differences between those students engaged in student initiatives in comparison to those who are not. The results can also be seen as an indicator that students apply (social) entrepreneurial competencies in extracurricular learning settings. Accordingly, extracurricular engagement can be seen as social entrepreneurial learning spaces.

Hypothesis B. In the research process, we distinguished between student unions (e.g., committees, councils), sustainability-orientated initiatives (e.g., sustainability, human rights, and inequality), career-orientated groups (e.g., consulting, job-seeking, lobby), and cultural groups (e.g., music, sports). Due to the small number of respondents of political groups (n=25) and religious groups (n=36), however, both had to be excluded from the further analyses.

Notably, students in the sustainability-orientated groups outperform their fellow students taking part in other student initiatives, regarding all aspects of Hockert's determinants for social entrepreneurial intentions (see Table 4.4). Students in sustainability-orientated groups rate their own empathy particularly high (Mean = 6.004; SD = .929), with a medium associated effect size of eta-square = .0594. For the other determinants of Hockert's, the differences are still significant between the groups, with a small to medium effect size (.017 < eta-square < 0.05). Students rate their *moral obligation* (M = 6.058; SD = .76), their *prior experience* (M = 4.539; SD = 1.419), their *self-efficacy* (M = 5.698; SD = 1.105), and their *perceived social support* (Mean = 5.132; SD = 1.135) higher than students in student initiatives which are not concerned with sustainability topics. In comparison, the results do not show any significant differences between the groups regarding their *entrepreneurial skills (creativity,*

Table 4.3 Differences between Engaged and Non-engaged Students in different Constructs.

	Scale		Mean	SD	T	Sign.
Social Entrepreneurial Intentions (Hockerts, 2017)	Prior Experience*	Engaged	4.108	1.511	0.963	n.s.
		Non-engaged	4.013	1.486		
	Self-efficacy	Engaged	5.485	1.112	4.091	<.00
		Non-engaged	5.177	1.193		
	Empathy	Engaged	5.554	1.205	1.526	n.s.
		Non-engaged	5.420	1.396		
	Moral obligation	Engaged	5.688	1.129	3.037	<.01
		Non-engaged	5.455	1.221		
	Perceived social support	Engaged	4.919	1.243	2.533	<.05
		Non-engaged	4.709	1.279		
Entrepreneurial Intentions (Peterman & Kennedy, 2003)	Perceived desirability*	Engaged	4.527	1.443	0.798	n.s.
		Non-engaged	4.451	1.457		
Entrepreneurial Mindset Mindset, attitude, core-self-evaluation (ASTEE, 2014)	Social Entrepreneurial Attitude	Engaged	5.322	1.279	1.455	n.s.
		Non-engaged	5.198	1.313		
Connectedness to labour market (ASTEE, 2014)	Innovative Employee	Engaged	5.745	1.011	3.932	<.00
		Non-engaged	5.450	1.206		
Entrepreneurial Skills (ASTEE, 2014)	Creativity	Engaged	5.346	0.984	2.757	<.01
		Non-engaged	5.144	1.176		
	Financial literacy	Engaged	4.511	1.384	3.031	<.01
		Non-engaged	4.231	1.428		
	Managing Ambiguity	Engaged	5.406	0.938	4.113	<.00
		Non-engaged	5.118	1.119		
	Cooperation*	Engaged	5.585	1.067	5.233	<.00
		Non-engaged	5.182	1.217		
	Preparing an entrepreneurial endeavour*	Engaged	5.427	1.098	4.957	<.00
		Non-engaged	5.042	1.216		

* Slightly adapted due to reliability issues in comparison to the original scale of the respective authors

financial literacy, managing ambiguity, cooperation, preparing an entrepreneurial endeavour), neither concerning their attitude to being an *innovative employee* (according to ASTEE), nor the perceived *desirability* for starting a (social) enterprise according to Peterman.

In terms of their social entrepreneurial mindset, students engaged in sustainability-orientated groups also differ significantly from students in other groups (MW = 5.653, SD = 1.210). As there are “only” differences regarding the determinants of social entrepreneurship (i.e., regarding students’ attitudes towards social entrepreneurship) but not regarding their entrepreneurial skills when engaged in sustainability-orientated student initiatives, hypothesis B can only be partially confirmed. Overall, our research shows that the competencies of engaged individuals differ significantly between different types of groups. This contributes to closing the research gap insofar that it is worthwhile to take a closer look at the topics that student initiatives focus on in their extracurricular learning spaces. At the same time, for management and entrepreneurship education in general, it should be noted that any extracurricular engagement represents an entrepreneurial learning space (Hypothesis A). Furthermore, to emphasize responsible management education and social entrepreneurship education, it is noteworthy that the sustainability-orientated initiatives seem to provide a learning space for social entrepreneurial competence development.

4.5 Discussion

The results of our study draw a picture of (social) entrepreneurial learning ‘beyond the curriculum’ in a university context. Our study thus extends recent studies by Bodolica et al. (2021) as well as Igwe et al. (2021). The major conclusions we draw and discuss in the following section are:

a) extracurricular engagement in any kind of student initiatives builds a relevant development space for (social) entrepreneurial competencies
b) engagement in sustainability-orientated groups in comparison to other types show the most potential for the development of social entrepreneurial competences and responsible management education.

In this chapter, we assessed whether engagement in different types of student groups correspond with differences in a broad array of self-reported (social) entrepreneurial skills, mind-sets and attitudes.

Table 4.4 Differences between Groups (Sustainability-orientated, Student Unions, Career-orientated, Cultural)

	Scale		**Mean**	**SD**	**F**	**Sig n.**
Social Entrepreneurial Intentions (Hockerts, 2017)	Prior Experience*	Student unions	3.939	1.535	10.288	<.00
		sustainability-orientated	4.539	1.419		
		career-orientated	3.506	1.486		
		Cultural	4.005	1.576		
	Self-efficacy	Student unions	5.345	1.178	3.847	<.02
		sustainability-orientated	5.698	1.105		
		career-orientated	5.337	1.163		
		Cultural	5.393	0.918		
	Empathy	Student unions	5.335	1.304	12.179	<.00
		sustainability-orientated	6.004	0.929		
		career-orientated	5.322	1.293		
		Cultural	5.425	1.189		
	Moral obligation	Student unions	5.522	1.187	10.231	<.00
		sustainability-orientated	6.058	0.76		
		career-orientated	5.468	1.382		
		Cultural	5.476	1.152		
	Perceived social support	Student unions	4.750	1.321	3.385	<.02
		sustainability-orientated	5.132	1.135		
		career-orientated	4.760	1.317		
		Cultural	4.874	1.185		
(Social) **Entrepreneurial Intentions** (Peterman & Kennedy, 2003)	Perceived desirability*	Student unions	4.423	1.593	0.915	n.s.
		sustainability-orientated	4.660	1.359		
		career-orientated	4.593	1.327		
		Cultural	4.561	1.340		
Entrepreneurial Skills (ASTEE, 2014)	Creativity	Student unions	5.330	0.976	0.219	n.s.
		sustainability-orientated	5.355	0.979		
		career-orientated	5.390	1.017		
		cultural	5.418	0.916		
	Financial literacy	Student unions	4.623	1.338	1.964	n.s.
		sustainability-orientated	4.345	1.398		
		career-orientated	4.733	1.471		
		cultural	4.566	1.340		
	Managing Ambiguity	Student unions	5.405	0.938	0.293	n.s.
		sustainability-orientated	5.395	0.893		
		career-orientated	5.497	0.986		
		Cultural	5.453	0.957		
	Cooperation *	Student unions	5.640	1.062	0.729	n.s.
		sustainability-orientated	5.530	1.069		

		career-orientated	5.680	1.077		
		Cultural	5.514	1.059		
	Preparing an entrepreneurial endeavour*	Student unions	5.422	1.116	1.045	n.s.
		sustainability-orientated	5.349	1.107		
		career-orientated	5.576	1.093		
		Cultural	5.517	0.952		
Entrepreneurial Mindset (ASTEE, 2014)	Social Entrepreneurial Attitude	Student unions	5.109	1.372	6.413	<.00
		sustainability-orientated	5.653	1.210		
		career-orientated	5.244	1.235		
		Cultural	5.151	1.251		
Connectedness to labour market (ASTEE, 2014)	Innovative Employee	Student unions	5.759	1.064	1.323	n.s.
		sustainability-orientated	5.896	0.918		
		career-orientated	5.647	1.038		
		Cultural	5.755	0.928		

We also analysed the differences between the different kinds of student groups and identified resulting differences in social entrepreneurial intentions. In so doing, we aimed to draw a detailed picture of the students taking part in sustainability-orientated initiatives, thus adding to research in the field by combining different instruments (Hockerts, 2017; Moberg et al., 2014; Peterman & Kennedy, 2003). Based on a survey of about 1000 participants, in different Southern German universities, the results clearly show that differences between these groups exist, and that students who are engaged perceive themselves as better equipped with (social) entrepreneurial competences than those who are not. This result is in line with Hockerts' (2017) findings that extra-curricular engagement may enhance the inclination toward social entrepreneurship. On the other hand, our results diverge from Hockerts' study, regarding previous experience. Thus, the role of previous experience in students' engagement in initiatives, should be subject to future research.

Generally speaking, student initiatives of any kind seem to represent an appropriate learning environment to develop entrepreneurial and responsible management competences. What is more, sustainability-orientated groups show a particular potential for social entrepreneurship education (see also Gunn, Durkin, Singh, & Brown, 2008; Howorth, Smith, & Parkinson, 2012; Toyah L. Miller, Wesley, & Williams, 2012; Pache & Chowdhury, 2012a; Smith & Woodworth, 2012). More precisely, sustainability-orientated groups—in comparison to the other initiatives analysed—may be perceived as more "socially entrepreneurial" or "socially innovative", as they show more pronounced attitudes towards social entrepreneurship as a proxy for social

entrepreneurial intentions (Hockerts, 2017). Thereby, these social entrepreneurial competences are aligned with the *"changemaker"* attributes in the young field of SIE (Alden-Rivers et al., 2015). Future research could explore this relationship further and investigate the relationship between (social) entrepreneurial competences and the changemaker attributes in different student initiatives.

Sustainability-orientated initiatives provide a powerful learning environment for an education for sustainable development and responsible management education. As practice-orientated learning communities, student initiatives provide a home for numerous change agents for sustainability (Heiskanen et al., 2016; Mogensen & Schnack, 2010; Sinakou et al., 2019). For a holistic, pluralistic, and action-orientated educational approach towards sustainable development, peer- and self-organized, action-orientated and transdisciplinary learning, as practiced in student initiatives, are central aspects (Sinakou et al., 2019). Against this background, sustainability-orientated student initiatives could be a highly effective and serious educational resource for sustainable transformation processes in the local university environment, often with a potential global impact (Gibson et al., 2008; Wihlenda, 2018).

It remains to be said: For the design of entrepreneurial learning spaces in the context of management education and entrepreneurship education, extracurricular learning spaces seem to be very well suited. Sustainable and social entrepreneurial learning spaces, especially sustainability-orientated extracurricular engagement, seem to have the highest potential for responsible management education.

4.6 Contribution, Limitations, and Implications

Our results contribute to contemporary discussions on entrepreneurship education in general, which center on the theoretical and philosophical foundations of an constructivist perspective by problem-based as well as experience-based teaching and learning (Hägg & Gabrielsson, 2019; Igwe et al., 2021). Learning to take responsibility for one's own learning process and learning to learn are of particular importance for the development of entrepreneurial competencies (Mueller & Anderson, 2014). Regarding the organization of teaching and learning processes in responsible management education and sustainability in management education, our study uncovers student initiatives as learning spaces that have often been underestimated so far, in which students take full responsibility and power over their learning projects

and learning content in the spirit of lifelong learning (Igwe et al., 2021; Sahin et al., 2010; Shier, 2001).

Our study extends the recent contribution by Bodolica et al. (2021) by investigating the development of students' (social) entrepreneurial competences. Our results provide first indications that students involved in student initiatives develop different competences than those who do not participate in such extracurricular activities. Furthermore, our study highlights the importance of sustainability-orientated student clubs for the development of a social entrepreneurial mindsets as well as sustainable and responsible management competences. Thus, it seems crucial for the future development of management education to provide students with learning settings based on responsibility since they form a prerequisite for personal development to become a responsible economic and global citizen. Our study refers also explicitly to social learning settings. Students' engagement takes place in groups and teams that organize themselves and in which learning goals and activities are negotiated (informally) by the students themselves. There, they learn to take responsibility for their behaviour in the group and their team and, at the same time, their impact through the group by real world projects. Educators can ask themselves to what extent their previous learning settings promote group and teamwork and to what degree (Tosey et al., 2013).

Learning spaces of extracurricular activities can inspire curricular-based learning settings in which teachers learn to better understand the mechanisms and frameworks for voluntary and intrinsically motivated learning and engagement to modify their own teaching offerings accordingly. In essence, this concerns the degree of freedom and responsibility that teachers give students in pursuing their learning processes, learning topics, or the extent to which problem-based learning is didactically integrated (Igwe et al., 2021; Kirk et al., 2016).

Our study may also contribute to student initiatives overcoming a situation in which they are regarded as mere complementary, "nice-to-have" adornments of the academic knowledge development process. Consequently, universities could or should think about creating conditions that promote the self-organized learning of student initiatives, for example with an own department, which may take the form of a "school of organizing", as discussed by Parker (2016) in the context of management education or as a "school for democracy" discussed by Dodge & Ospina (2016).

Building on the close relationship between education for sustainable development (ESD) and global citizenship education (GCE), also UNESCO emphasizes the importance of experience-based learning in the GCE approach, and the discourse about (global) values and attitudes (Gaudelli, 2016; Gohl, 2018; Nikolitsa-Winter et al., 2019; Suša, 2019; UNESCO, 2016). Of particular interest is the finding that students engaged in sustainability-orientated groups, are directly addressing global environmental and societal challenges. Local student groups also often belong to global student organizations (Wihlenda, 2018). Consequently, their nature as experiential-learning groups seems particularly suited for global citizenship education, and is also in line with recent scientific discussions regarding social entrepreneurship research—increasingly focusing on ethical issues (Hota et al., 2019).

Some serious limitations of our results, however, must also be mentioned here. These primarily have to do with the necessary static, cross-sectional character of our research; although we could show significant differences between the engaged and non-engaged students, as well as between participants in different groups, *the direction of causality remains unclear*. Thus, our results allow no conclusion as to whether participation in sustainability-orientated groups (or even in student initiatives at all) does effectively strengthen the reported variables, or whether more self-effective, empathetic, morally obliged, or perceptibly socially supportive young people simply choose to join sustainability-orientated student groups. Further research—especially longitudinal or panel studies analysing changes over the course of time (e.g., before and after involvement in a student group)—is required to answer this question.

Moreover, another limitation of our results lies in the self-reported character of the mentioned skillsets, intentions, and mindsets. As mentioned above, our results show a (slightly) higher level of social attitude, self-perceived innovativeness, empathy, moral obligation, and perceived social support for participants in sustainability-orientated student groups. It remains unclear, however, whether this difference could also be supported by external assessment or complementary tests. Rather, an alternative cause for these findings could be that students engaged in sustainability-related groups—compared for example with colleagues from student unions or career-orientated groups—might be particularly susceptible to the *desirability bias*. It is true that research regarding the validity of self-reported measures has found that “self-reports and test scores do represent the same constructs, but not to the degree that

there is a one-to-one correspondence between self-reports and more objective measures of achievement" (Gonyea, 2005, p. 81). Additional research would therefore be necessary to find out more about differences between students and come to a less ambiguous interpretation of our result. Additionally, an important question that still needs to be answered is whether students engaged in such groups will indeed become (social) entrepreneurs in the future. Furthermore, future studies should assess the institutional impact of these initiatives, for instance, on the HEIs. As our study is cross-sectional, it would be worthwhile to conduct longitudinal studies to shed light on the long-term benefits of engaging in student initiatives.

Despite these limitations, our results represent an important heuristic and exploratory step toward a new – and substantially transformed – perception of the role of engagement in student groups. Until recently, this engagement in student groups was rather exclusively interpreted as a private affair, which has nothing to do with (and sometimes even contradicts) the academic process of knowledge development. The mainstream character of this interpretation is still manifest in the fact that examination regulations of most universities still rate all kinds of student engagement as strictly extracurricular. Even though our results do not yet prove the educational function of student initiatives in an unambiguous way, they may nevertheless show that those initiatives represent an important complementary element of the formal education in university seminars, lectures, internships, and other traditional forms of education.

Finally, the evident relationship between students' engagement in sustainability-orientated initiatives and their perceived self-efficacy for (social) entrepreneurship revealed by our data, may also help to instruct the recruiting process for university programmes. It may further emphasize the relevance of these types of memberships as a qualification criterion for academic entrepreneurship programmes.

Overall, our results contribute to describing future responsible leaders in a more differentiated way. They highlight the value of student-led initiatives for the development of entrepreneurship competences, and consequently for the development of future responsible managers. In this way, our study also encourages educators to consider student extracurricular engagement as an opportunity-rich place for responsible management learning and (social) entrepreneurship education. It also highlights the potential and responsibility for universities and higher education institutions in general to extend their (global) societal impact.

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5 General Discussion

This dissertation addresses the nascent field of social innovation education. It examined the field mainly from the perspective of economics, which still predominantly influences the discourse and literature. It also contributed to the fledgling field of social entrepreneurship education and its intersections with global citizenship education, sustainable development education, and management education in general. In the introductory section, different disciplinary and thematic approaches around the young concept were outlined. In addition, student engagement and learning in communities of practice, the subject of all three studies, was explored in more detail.

Subsequently, the three studies were each presented as independent works that followed a common thread and illuminated the phenomenon at the institutional level, at the didactic level, and from the perspective of competence development. Due to this being a rather phenomenon, all studies followed an exploratory approach in the pragmatist tradition.

The starting point for describing the phenomenon of SIE was the practical implementation and further development of the World Citizen School model, which has been developed over several years at the Weltethos Institute of the University of Tübingen in the conception of a "social innovation school".

This first study (Chapter 2) investigated how a holistic learning system for SIE can be designed and anchored institutionally. The practice of the World Citizen School project with its different aspects, which form the holistic learning system, served as the subject of evaluation in the form of a scientific workshop report.

The second study (Chapter 3) examined the principles according to which social-innovative teaching and learning settings can be designed. The study described the theoretical foundations, the process and their practical relevance based on the inquiry-based learning approach.

The third study (Chapter 4) investigated what (social) entrepreneurial competencies engaged students develop or can develop through their volunteering. The subject of this study was engaged students from different student initiatives and their “communities of practice”, in which they engage with different topics and activities. In total, more than 1000 engaged and non-engaged students from 13 different universities were interviewed.

The dissertation contributes to the institutional and didactic level, the competence discourse as well as to the discussion about third mission on higher education policy and socio-political level of the young concept. Accordingly, the results are discussed at all levels of a holistic pedagogical university development, to explore and design teaching and learning (Brahm et al., 2016).

5.1 Discussion of General Findings

5.1.1 Summary of Findings

The first study (Chapter 2) presented the World Citizen School project at the Weltethos Institute of the University of Tübingen. It describes a four-level holistic model for the promotion of student community-orientated, and socially innovative engagement in student initiatives. The central result of the evaluation of the extracurricular activities of student initiatives, shows the particular importance and value of this as educational engagement for the university. This applies both in terms of informal (management) learning in initiatives, and educational events such as seminars, workshops and learning weeks through initiatives. Through the model, the extracurricular learning space becomes visible and classifiable as a qualitative learning environment alongside the academic (curricular) one (Ahmed et al., 2021). Furthermore, the study shows that learning in established communities of practice follows its own logic, and can only be supported to a limited extent with classical workshops, for example through knowledge management or fundraising (Wenger & Wenger-Trayner, 2015). Student initiatives that have already existed for several semesters or generations (even if members join or leave), require different support formats from start-up initiatives that are in the founding phase. The former is more likely to be supported via network structures and the associated informal learning, while the latter is addressed by camps, hackathons, and idea development workshops. In general, group-specific coaching proves to be suitable for both initiatives (Hamann et al., 2021). To promote cooperation between socially engaged students and their initiatives, network structures with regular events both on-site and online, are conducive. At the institutional and administrative level of the learning system, internal and external communication competencies, for example in the form of editorial structures (Esser, 1998), prove useful in ensuring organisational

memory and knowledge management beyond the respective students generations (Maier & Hadrich, 2011)

The second study (Chapter 3) makes an innovative contribution to the literature on social entrepreneurship and, in particular, the design of social innovative learning programmes, based on a theoretically sound methodology. The subject of the study was the “social innovation camp”, a two-day course that was developed and formatively evaluated in a design-based research process. Based on the inquiry-based learning approach, five phases for promoting social innovation in the university setting were developed and further refined in the research process (Pedaste et al., 2015). In all phases of the social innovation camp, the idea of teaching “through entrepreneurship"—in the sense of experiential learning—is at the forefront (Lackeus, 2015). The central result and insight of the study, is grounded in the theory of inquiry-based learning and its exemplified application in the workshop format, its importance for social entrepreneurial action in practical projects, and as a process method for the scientific evaluation and design of learning programmes (Design-Based Research Collective, 2003). Furthermore, the results point to the importance of student-centred learning settings, which require knowledge about the target groups and participants, to align the lessons with their personal (learning) interests and project ideas (Wright, 2011).

The third study (Chapter 4) investigated what (social) entrepreneurial competencies engaged students develop or can develop through volunteering. It investigates: a) whether engaged students differ from students who are not engaged in initiatives, and b) what kind of skills or abilities engaged students show while being involved in extra-curricular initiatives. The study further distinguishes between students involved in sustainability-orientated groups, student unions, career-orientated groups, cultural groups, and political and religious groups. The results show significant differences between engaged students and their non-engaged colleagues, as well as between different kinds of groups. Members of sustainability-orientated groups are better equipped with social entrepreneurial competences. The results show a picture of (social) entrepreneurial learning “beyond the curriculum” in a university context. The major conclusions are:

a) extracurricular engagement in any kind of student initiatives builds a learning space for (social) entrepreneurial competencies and

b) engagement in sustainability-orientated groups, in comparison to other types, shows the most potential for the development of social entrepreneurial competences and responsible management education.

This dissertation focuses on the question of which informal and formal contexts can foster social innovation and contribute to SIE.

SIE is a nascent field that lacks both theoretical foundation and empirical knowledge (Alden-Rivers et al., 2015; Kalemaki et al., 2019). The studies of this dissertation improve this situation by providing information about relevant aspects on the level of social-entrepreneurial competence development of students, on the didactic design of learning settings and on institutional anchoring of socially innovative learning spaces. These are discussed below.

5.1.2 Competences

The study on (social) entrepreneurial competencies, highlights the importance of extracurricular student engagement as a university learning space where entrepreneurial competencies are applied and practiced (Ahmed et al., 2021). Extracurricular engagement thus represents a learning space for the development of entrepreneurial competencies (Pittaway et al., 2011). Entrepreneurship, management, and citizenship instructors, whose goal is to strengthen their students' competencies through experiential learning, should encourage their students to volunteer accordingly. They could do this, for example, by including engaged students and their initiatives as case studies in class, or by offering service-learning seminars that directly involve student initiatives and associations, instead of external civic organisations, for which project work is done. More generally, they can do this by using their freedom of teaching and research, to give students the option and time to volunteer as part of their studies.

Furthermore, the results make it clear that differentiation should be made in the selection of addressed initiatives based on their focus. This is particularly important for socially innovative learning. The results show that sustainability-orientated initiatives provide a special learning space for socially innovative learning. Faculty in the emerging transformative degree programmes, sustainability degree programmes and student engagement centres, should consider this when designing their supporting programmes.

The empirical results of the third study (Chapter 4), thus support the understanding of the World Citizen School as a socially innovative learning space, that addresses initiatives that promote human rights, interculturalism, equal opportunities, equity, and social justice (Chapter 2). At the same time, voluntary engagement of students requires a culture of voluntary engagement, and that students (in addition to or during their studies) have the time they need to get involved. In this regard, the German Council of Science (Wissenschaftsrat, 2022) recommends more spaces for action, to enable students to take on responsibility as a core message for the sustainable design of studies and teaching. The council refers to a cultural change that demands more trusting interaction, more cooperation, more exchange and more participation on the part of both students and teachers (Triyanto, 2019). Students should, for example, be expected to adopt new teaching and examination formats. One examination format could be voluntary engagement and its reflection, for example, in the form of an essay. Since there is a risk that extrinsic incentives, such as the awarding of credit points and grades, will interfere with intrinsic motivation to volunteer, it is important to choose these incentives wisely. This can happen through ungraded coursework or, more generally, through a trusting climate between teachers and students in the classroom (Dodds et al., 2022; Ryan & Deci, 2020). Such a climate is a prerequisite for the empowerment of students and their voluntary assumption of responsibility (Broom, 2015; Kirk et al., 2016).

5.1.3 Didactics

The results from the empirical study allow interpretations regarding the design of socially innovative learning settings. Teachers can learn from the requirements of voluntary engagement. Voluntary commitment is characterised by learning spaces in which volunteers choose their own topics and projects, and decide for themselves when to implement them and with whom. The degree of responsibility in such real-world learning spaces is very high. From this, it can be inferred that teachers consider in their (conventional) learning settings how to allow, organise and encourage a high level of responsibility, to let students decide for themselves what they want to learn, how they want to learn, and how they take responsibility in the world (e.g., through social-innovative project learning).

At the same time, this requires teachers to view themselves as learning facilitators (Mergendoller et al., 2006; Tsien & Tsui, 2007) and to have didactic/teaching skills that promote a high degree of participation in dealing with different students (Kirk et al., 2016). For universities, this means creating further training possibilities for participative teaching cultures and project- and problem-based learning. Moreover, it might be useful to require such qualifications as a prerequisite for employment as a university lecturer.

Our study on the social innovation camp design (Chapter 3) emphasises the importance of inquiry-based learning (IBL) for social entrepreneurial process and didactics design of social innovation and entrepreneurship courses (Pedaste et al., 2015; Pittaway, 2009). Such didactics follow the curiosity of the learner, while teachers take the position of a learning facilitator. They accompany and support students in solving their problems, in meeting their challenges and, more generally, in answering their life questions. If the main goal of SIE, as described by some authors, is to foster design competencies in students, then experiential learning scenarios move to the centre of teaching. IBL promises to be an efficient “mental model” for promoting social innovation, education through entrepreneurship and accompanying research. Therefore, the procedural approach of IBL can serve as a starting point for social entrepreneurship and social innovation lecturers, researchers, practitioners, (educational) entrepreneurs and innovators and for a range of outcomes. First, for the development of an experiential-based learning design or programme for socially innovative learning. Second, for investigating one’s own teaching on the basis of an educational design-based research design for example, according to the idea of the "science of teaching and learning" (Felten, 2013). Third, for one’s own and students’ social entrepreneurial (research) projects in the field of social innovation, for example in "engaged scholarship" (Holland, Powell, Eng, & Drew, 2010; Howaldt, Domanski, & Schwarz, 2015). Against this background, IBL offers a theoretical and didactic approach to all kinds of socially innovative learning scenarios like seminars, workshops, research projects or personal coaching (Archer-Kuhn & MacKinnon, 2020). Although an inquiry-based attitude is certainly part of the professional ethos of researchers, the question is whether they have such competencies in their role as teachers, or whether they want to acquire them and translate their teaching into IBL processes. A mix of incentives is required to foster the use of IBL. These could include teaching awards, inclusion of qualitative and quantitative evaluations by students and

managers, consideration of existing teaching expertise in faculty hiring processes, or general strengthening of the discourse on good teaching practice within the university through public relations work, collegial teaching consultations and so on (Orchard & Winch, 2015; Sánchez-Cardona et al., 2012).

Both the study on the World Citizen School model (Chapter 2) and the didactic study (Chapter 3) point to the need not only to accompany individual students in their personality and competence development but also the need to support different project teams and initiatives with different methods. Student initiatives that have already cultivated an established form of organisation and have existed for several semesters or years, for example, may require different methods for developing their projects from students who want to develop entirely new ideas or build organisations. Here, too, the inquiry-based learning approach promises to sharpen the focus on the students' needs, and to support them according to their specific ideas and questions (Design-Based Research Collective, 2003; Scheer et al., 2012).

5.1.4 Institution

The final question is, where and how socially innovative learning settings can be institutionally embedded at universities. As our quantitative study shows, extracurricular engagement at universities already provides a significant, albeit informal, learning space that is rarely understood as a holistic educational space and promoted to that end. At universities, there are typically individual funding projects or points of contact that support, for example, engaged individuals to obtain spaces for activities or small budgets. Today's demands on universities are changing this view and increasingly calling for new learning spaces that support both curricular and extracurricular engagement (Wissenschaftsrat, 2022). Discussions about future skills emphasises self-organisation, value-based learning, working with others in teams, critical thinking, and so forth (Ehlers & Kellermann, 2019). It is also often argued, that new learning cultures can only be developed holistically and that it depends on the interaction of all levels of a university (Brahm et al., 2016). In the context of sustainable development, for example, the call for a whole-institution approach is frequently expressed (Kohl et al., 2022). The World Citizen School model provides such a holistic learning space, and offers higher education institutions an approach to meet these challenges to strengthen social-innovative learning cultures at universities.

The model combines the learning space of voluntary, community-based engagement with co-curricular learning programmes (such as social innovation camps), and involves students in the self-organisation of the entire learning system through an agile team study (Lange et al., 2020). In this way, the World Citizen School model exemplifies two socially innovative learning spaces that were previously invisible or barely visible: extracurricular engagement as well as the opportunity for students to co-design and take responsibility for the entire learning system.

In this respect, the model can serve as a blueprint for the co- and self-organisation of study programmes, courses of study, entire faculties, and the chairs of professors. In the same way, the model can inspire the discourse on new forms of business schools, such as those described by Parker (2016) as "Schools for Organizing" or by King & Griffin (2019) as "Schools for Democracy" (see also Dodge & Ospina, 2016). The model is a practical example for shaping or complementing previous learning settings of responsible management education (Moosmayer et al., 2018), sustainability in management education (Shrivastava, 2010) and global citizenship education (Suša, 2019). It is also an example for the strategic development of universities in terms of a quintuple helix (Carayannis et al., 2012). The latter reference makes it clear that SIE should ultimately not be thought of and practiced only in economics, but is a field of action that concerns the entire university with its inter- and transdisciplinary learning spaces. This is also what makes extracurricular, interdisciplinary engagement in initiatives and start-up projects special.

5.2 Limitations and Implications for Future Research

Despite the strengths of the studies outlined in the previous section, these studies are subject to some limitations. Although our study of entrepreneurial competencies revealed significant differences between engaged and non-engaged students, as well as between participants in different groups, the direction of causality remains unclear. The results do not allow us to conclude whether participation in student initiatives strengthens entrepreneurial competencies. Similarly, the study cannot demonstrate whether, for example, more self-efficacious, empathetic, morally committed, or socially supportive individuals choose to participate in sustainability-orientated student groups. Further research—particularly longitudinal or panel studies that analyse changes over time—is needed to answer this question.

Another aspect concerns the self-reported character of the (social) entrepreneurial skillsets, intentions, and mindsets. Self-reports represent the same constructs. At the same time, they do not do so to the extent of a one-to-one relationship between self-reports and more objective measurements (Gonyea, 2005). Additional research would therefore be necessary to find out more about differences between students, and enable a less ambiguous interpretation of our results. It could be that students engaged in sustainability-related groups—compared with other groups—might be particularly susceptible to the desirability bias. The results show, for example, a (slightly) higher level of social attitude, self-perceived innovativeness, empathy, moral obligation, and perceived social support for participants in sustainability-orientated student groups. It remains unclear, whether this difference would also be supported by external assessment or complementary tests.

Another question that remains is whether students who engage in such initiatives become (social) entrepreneurs and changemakers in the future. Future studies could ask how the engagement has an institutional impact on higher education institutions. In addition to our cross-sectional study, it would be useful to conduct longitudinal studies to shed light on the long-term benefits of engagement in student initiatives.

Another aspect concerns the development of ethical competencies through socially innovative learning. Student initiatives can be seen as communities of values, in which certain norms and principles as well as a group-specific habitus prevail (Zhao & Kuh, 2004). Sustainability-orientated student initiatives form value communities with an explicit orientation towards the common good and with a particularly solidary and empathetic basic attitude towards social justice and related challenges. The study cannot say anything, however, about whether and how these values develop through student engagement (Ollis, 2011).

Another aspect of the dissertation concerns the competencies and competence development of teachers. No explicit study was conducted in this regard. Although the results provide indications of a new understanding of the role of teachers as learning facilitators, the question remains open as to which specific competencies would be useful to promote, and which competencies are used in social innovation labs, hubs, or engagement support centres. First indications of the required competencies are given, for example, by Wascher et al. (2018). Future quantitative and qualitative studies could be based on this.

Our study on the course design of the social innovation camp, allows practical and theoretical conclusions for the design of social-innovative learning settings such as workshops, seminars, semester courses and degree programmes. The study design, however, was limited to the practical implementation of a three-day workshop. The underlying process philosophy of inquiry-based learning gives hints as to how a semester course or a study programme could be divided into phases with the help of the inquiry cycle (Pedaste et al., 2015). Regarding the social innovation camp, the question is where to integrate such a disruptive course design in existing curricula of higher education institutions. As such, it could either become a core course for all students or could be integrated as an elective course. When such socially innovative learning is integrated as an elective course, another limitation must be considered: Only students who already have a positive attitude towards social innovation and social entrepreneurship would be likely to choose such a course. Therefore, not all students would be reached with the topic, and the concept of social innovation would remain limited to a few students who choose the course out of their own interest and curiosity. The possibility of a curricular and extrinsically motivating compulsory course to generate intrinsic learning motivation in students during the course, would be excluded from the outset (Hennessey et al., 2015).

As a third limitation, we identify the preliminary nature of our impact assessment of the study. The design-based research framework was employed systematically to evaluate the student experience, and further develop the instructional innovation over the course of the prototypes which was accompanied by multiple research methods. The study cannot, however, prove that this method is more impactful than others. For better external validity, it should be assessed whether students develop (social) entrepreneurial skills by participating in such a course. Ideally, such research should not only include self-selected students.

Another limitation is the question of how to train instructors and coaches for such an innovative approach, and the general focus of all three studies on social learning in communities and thus learning "through" social innovation. The studies thus emphasise the importance of social problem- and project-based learning in communities (Hmelo-Silver, 2004). SIE, however, also includes teaching "about" social innovation (Lackeus, 2015). The studies do not provide any direct information or empirical data on how knowledge on social innovation should be taught. In this regard, empirical results are still lacking on how "about" social innovation or social

entrepreneurship is typically taught at universities or how this content should be taught in a more value-free and descriptive yet activating way.

(Karkouris & Liargovas, 2021). This is especially important when there is a lack of basic conceptual understanding of social innovation or social entrepreneurship among students, even though the courses are titled with these terms.

Another open question, with special significance for the future discourse on social-innovative learning, is how ethical competencies can be developed, and responsible ethical leaders trained. The inquiry cycle offers space for the reflection of own project development, as well as the personal wishes and interests of the students. In the didactics of the camp study, however, ethical values become the subject indirectly. This happens through the student's personal interests and visions, which are asked about at the beginning of the inquiry cycle and through the development of a socially relevant project idea. In addition, at the end of the inquiry cycle, the participants are encouraged to reflect on what they have developed. The explicit reflection on ethical values and personal attitudes is not the subject of the didactics or the formative evaluation of the design. The question remains as to how students' moral attitudes towards social justice can be developed, and how teachers can meaningfully guide this reflection in the time-limited workshop setting studied.

All in all, it would be interesting to see how the inquiry cycle could be used to develop a transformative course of study in which IBL itself represents the central didactic method in everyday study, and which could be evaluated with the help of the educational design-based research method (Design-Based Research Collective, 2003).

Finally, the study on the World Citizen School model is a single case study with preliminary findings (Reis, 2009). The study does not make any comparisons to existing social innovation labs, their didactic approaches, learning objectives, design of learning programmes or their way of community building. This is due to the prototypical character of the model, but also the lack of data on existing labs both within and outside of universities. To the best of my knowledge, there are only two empirical comparative studies of social innovation labs or study programmes and courses on social innovation and social entrepreneurship (Magalhães et al., 2020; Westley et al., 2017). Such studies would not only help to create transparency and give the topic of social innovation more academic visibility, but also raise the possibility that organisations could better learn from each other's approaches and programmes.

5.3 Critical Reflection

As a last step, the studies are reflected on with regard to critical entrepreneurship education (Berglund & Verduijn, 2018b), and the associated critical pedagogy (Nouri & Sajjadi, 2014). These concepts overlap, and promise to enrich the discourse on future SIE. Critical pedagogy emphasises the freedom and responsibility of individuals to lead a self-determined life, characterised by personal judgment and creative power. This is recognisable in the ideal of the responsible citizen who contributes to social change. In particular, critical pedagogy emphasises the importance of the empowerment process of each individual, which leads to a self-determined life in various areas of society (Dheram, 2007).

Critical entrepreneurship studies, and critical entrepreneurship education, direct their focus to reflecting on the goals of entrepreneurship and entrepreneurship education, respectively. The concepts create space to question the claim of narrow, market-based action, and to be able to understand alternative and pluralistic approaches, such as social entrepreneurship and social innovation, as a special kind of entrepreneurship (Berglund & Verduijn, 2018a). They question the function of an instrumental purpose of entrepreneurship and entrepreneurship education. This is, for example, limited to the creation of new ventures and economic growth on the organisational level, or to the pure fulfilment of egoistic interests of the entrepreneur on the individual level (Lindbergh & Schwartz, 2018).

Importantly, our studies of competencies in sustainability-orientated initiatives reveal a learning space that promises to address social inequalities (which is especially true for initiatives that address, e.g., inequality in education or society). In general, sustainability-orientated engagement creates a space for reflection in terms of critical pedagogy. On the other hand, the study does not provide insight about who is engaged, with what social background and what socialisation. In this respect, the crucial question remains open, whether the learning space of voluntary engagement promotes students who are endowed with a high expectation of self-efficacy merely because of their socialisation; that is, whether the promotion of student engagement itself promotes the reproduction of elites and undermines the intention of promoting equal opportunities through engagement. This requires further studies on the socio-economic status of engaged students (Greger, 2019; McLaren, 2007).

This leads to the question of the extent to which the World Citizen School model developed in the university context, is dependent on the cultural context of the university. The university has associated principles and norms through which students enjoy the privilege of studying, and teachers promote the reproduction of elites with their learning opportunities. It is unclear whether social innovation schools like the World Citizen School are really able to permanently ensure permeability in the education system, and enable access for marginalised groups through social innovation (Landorf et al., 2007). It raises the question: to what extent is a university in which SIE is practiced, suitable to meet society and marginalised groups on an equal footing, and to increase their quality of life. There is a lack of empirical studies that explicitly examine the role of social innovation labs and learning settings in this regard. Furthermore, the question arises whether the presented university learning spaces and learning settings of this dissertation could be institutionalised outside of universities, for example in civil society organisations, associations, or network organisations. The argument against this could be that the approaches of social innovation and social entrepreneurship are understood in particular academic terms, whose understanding outside the university environment is presuppositional (Bayuo et al., 2020; Parthasarathy et al., 2021).

As highlighted in the theoretical introduction of this chapter, the Helix concepts are important for the self-understanding of the innovation performance of universities as a whole (König et al., 2021). A critical examination points to the reductionist understanding of innovation through a triple helix, which primarily considers the interaction between universities, industry and government, as the breeding ground for innovation (del Cerro Santamaría, 2019). Especially the holistic and participatory claim of social innovation and SIE that appear from critical entrepreneurship and critical pedagogy, is an especially promising correction. Thus, the institutional framework of the World Citizen School as an example, points in the direction of a quintuple helix concept, in which the student civil society was involved, and a learning space in the sense of sustainable development and education for sustainable development, was created. At the same time, the model project has so far fallen short of its claim to better allow external networks, actors, and partners to participate. This involvement is a prerequisite for the quintuple helix understanding. This possible development faces the challenge of the boundaries of the university system. The practical development still needs corresponding scientific research. Above all, however, this presupposes that, in

addition to research and teaching, universities give special consideration to the task of transfer in the sense of the third mission. The World Citizen School model, and the support of extracurricular engagement, seem to be a natural and correspondingly efficient way to strengthen the transfer commitment of universities.

On the didactic level, the approach of inquiry-based learning offers a strong methodological framework for critical reflection in learning settings. In the learning setting of the social innovation camp, problem-based and systemic thinking are promoted as part of critical thinking (Lindbergh & Schwartz, 2018). At the same time, it is especially up to the teachers, to what extent they confront students with critical questions in the tradition of critical pedagogy, and provide space for dialogue and reflection (Achtenhagen & Johannisson, 2018).

Finally, the central critical question remains open: What is the purpose of SIE? Due to political guidelines and the requirements of funding programmes to promote (market-orientated) start-ups, teachers may be tempted to see the purpose of their social innovation teaching primarily in the creation of new (market-orientated) ventures and projects, thus misusing learners and their creative energy purely for the purpose of a start-up or project implementation (Sansone et al., 2020).

The purpose of any education is primarily the learners' personal development. Project-based learning or specific start-up didactics, from a humanistic and critical pedagogical perspective, can only serve as a means to the end of developing and empowering learners (Aloni, 2013; Dewey, 2004).

The critical points briefly outlined here, and their underlying freedom-philosophical considerations of critical pedagogy, can help SIE to formulate further research questions, and to ground the concept and derive practical design recommendations. In particular, the capability approach according to Amartya Sen and Marta Nussbaum, briefly presented in the introduction, can point the way for this (Howaldt & Schwarz, 2017).

5.4 Implications for Practice

The focus of this dissertation is on initiatives and project teams, thus on social learning, which includes social dimensions and social problem solving (Triyanto, 2019). This dissertation emphasises the potential and importance of social learning for SIE. This is expressed in responsible learning in communities of practice where learners learn

to take responsibility for themselves and for others. SIE focuses on participatory learning scenarios, in which learners are given the highest possible degree of responsibility by teachers, or by their fellow students, in initiatives for their own learning goals, learning processes and for their (potential) projects or start-ups. The challenge in teaching practice is to adequately create learning scenarios for SIE that take into account reciprocity, power relations, and student voice. A promising framework for SIE practice can be provided by an adapted model of the 'Ladder of participation and empowerment' (see Chapter 1.4). This does not ascribe greater importance to one higher level over other levels, but offers guidance for the situational design of SIE learning scenarios (Willness et al., 2022; see also chapter 1.4).

Various aspects and their interplay, sharpen the profile of SIE *vis-à-vis* other transformative learning approaches such as entrepreneurship education, education for sustainable development and global citizenship education and service learning. These include at the didactic level:

a. social and participatory learning in initiatives, teams, and communities of practice;
b. a focus on experiential, project-based learning through the inquiry-based learning approach;
c. connecting to learners' genuine interests and personal project ideas,
d. empowering learners in long-term, self-organised project teams and organisations; and
e. values-based learning in ethically motivated and sustainability-orientated communities of practice.

At the institutional level, this includes:

a. fostering ownership through student participation in co-creating learning spaces, as exemplified by the World Citizen School model.
b. the design of inter- and transdisciplinary learning spaces in contrast to a purely disciplinary location e.g. only within economics and business faculties.

For the formation of social-innovative ecosystems, institutionalised learning spaces should be created at universities, ideally in partnership with (civil society or public) organisations. These partnerships make the existing local engagement visible, allow new engagement to emerge and help social innovations to spread. These learning spaces include extracurricular engagement in sustainability-orientated initiatives, curriculum linked workshops and seminars (e.g. the agile team study of the World

Citizen School) (Lange et al., 2020), and novel study programmes (e.g. such as the Team Academy model) (Tosey et al., 2015). Institutionalised learning spaces should be participatory and co-organised by learners (students). In these, teachers should primarily act as facilitators and coaches. The central competence of future teachers, coaches and facilitators of social-innovative learning spaces is to accompany such learning processes that procedurally promote and cultivate the dialogue about the common values, goals, and visions of all participants. This applies equally to individual student support, the organisational project level, and the world-society level. Participatory network structures are an important prerequisite for social innovations (Sgaragli, 2014). Only a common understanding around underlying values creates effective network structures (Gohl, 2018; Küng, 1997).

Lastly, this required competence concerns the further (academic) development of SIE, with its globally connected initiatives (Pel et al., 2020). Especially value-based learning, as practiced for example by the Global Ethic Project through dialogue around shared global values, promises to strengthen the discourse and development of social innovation education (Dierksmeier, 2018; Gohl, 2018).

According to the long-term learning journey of this dissertation, SIE is understood as self-responsible and globally responsible learning in plural communities, in the sense of lifelong learning for all those involved.

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Declaration on Authors' Contributions

This publication-based dissertation includes two manuscripts that were written together with other authors. The manuscript titled `The World Citizen School –A space for self-organized learning of socially engaged student initiatives (see chapter 2; status in publication process: published) was written in single authorship.

The proportional contributions to the other two manuscripts are presented in the subsequent tables.

Chapter 3

'The Social Innovation Camp – Fostering Social Entrepreneurship as a Process'

Author	**Author Position**	**Scientific ideas %**	**Data generation %**	**Analysis & interpretation %**	**Paper writing %**
Michael Wihlenda	first	90	100	70	70
Taiga Brahm	second	10	0	30	30

Status in publication process: Submitted

Chapter 4

'Responsible Management Education: Social Entrepreneurial Competences of Civically-Engaged Students'

Author	**Author Position**	**Scientific ideas %**	**Data generation %**	**Analysis & interpretation %**	**Paper writing %**
Michael Wihlenda	first	80	100	70	70
Taiga Brahm	second	20	0	25	25
André Habisch	third	0	0	5	5

Status in publication process: Submitted (Minor Revision)