Towards a learning framework for social innovation education

Irene Kalemaki
Ioanna Garefi
Sofia Kantsiou
Ivan Diego
Aristidis Protopsaltis
Jenifer Clare Wall
Abstract: Although in the last decades a rich literature around Social Innovation has emerged, Social Innovation Education (SIE) is a new concept and has been relatively under-investigated, while there is no clear definition explaining what SIE entails.

This paper presents the first attempts of the EU funded NEMESIS project to design a non-prescriptive learning framework for embedding social innovation in education. Therefore, the aim of this paper is to discuss how SIE is conceptualised; its underlying educational philosophy; the principles informing its design; and how it differentiates from other contemporary educational approaches.

The insights generated by investigating these points offer the basis for designing a Social Innovation Learning Framework which is envisaged to have a dual scope; from a practical point of view, it will act as a tool for educators, supporting them to deliver SIE in their contexts; from a research point of view, it will contribute to the scientific and policy discourse on the future of social innovation in education by providing evidence and clarity on what SIE entails and how it can benefit the field of education.

Keywords: Social Innovation Education, learning framework, empowerment, socio-political activation, competences
1. Introduction

The 21st century is characterised by impressive scientific and technological innovations and changes, unprecedented socio-economic challenges, socio-political restructurings and remarkable cultural reawakening, synthesising a new milieu of continuous transformations.

In this light, “rethinking education in a changing world”, has been placed high in the global policy agenda (EC, 2012; UNESCO, 2015; OECD, 2018). Educating the next generation of citizens who will be prepared to successfully cope with both the challenges and opportunities that societies are facing now and, in the future, presents a key challenge for policy makers, researchers and educators. But what does education that aims to prepare students for a complex and uncertain world entail? Scholars discuss preparing young people for jobs that have not yet been created and for solving problems that have not yet been anticipated. To flourish in such an unpredictable environment young people need to be equipped with a variety of competences to be able to adapt to constant change, work with others with different perspectives, identify unexploited opportunities to create solutions to big problems etc. As such, the attention is paid on competences such as initiative, resourcefulness, determination, critical thinking and problem-solving skills that are central to developing an entrepreneurial mindset and thus enabling the next generation to deal with varied and unpredictable career paths (EC, 2016).

In this respect, it is often argued (Linda and Lytras, 2018) that schools need to move from traditional fact-driven, lecture-based educational models towards active and experiential learning approaches if they are to equip students with the skills needed for thriving in the 21st century. To this end, during the last decade there has been a blast of innovative educational practices and enabling pedagogical approaches that employ active learning methods and focus on building transversal competences and entrepreneurial mindsets. For example, entrepreneurship education with its wider dimension is highly promoted in school curricula as an essential drive to better prepare students for the rapid economic, scientific and technological developments, that will contribute to economic development and job creation (Lackeus, 2015).

However, as part of the wider discussion which focuses on rethinking the purpose of education, a central question that is posed is: should education mainly focus on preparing young people for the future world of work? Despite the uncertainties that characterise the 21st century labour markets for which young people should be better prepared, this century is also characterised by a growing array of complex societal problems (ranging from environmental, to demographic and political) that require not only innovative responses and entrepreneurial mindsets but also agency and responsibility for driving changes that will lead to a inclusive and sustainable future.

According to the shared vision for education promoted by OECD (2018), it is highlighted that “young people need to abandon the notion that resources are limitless and are there to be exploited; they will need to value common prosperity, sustainability and well-being. They will need to be responsible and empowered, placing collaboration above division, and sustainability above short-term gain”. This shared vision for the future of education by OECD bears a strong resemblance to an extensive stream of
research relating the concept and practice of social innovation to transformative sustainable development. (Simon et al., 2014; Haxetline et al., 2012; Haxetline et al., 2016).

Therefore, assuming social innovation as a possible area of fostering the purposes of education in the 21st century, a number of conceptual and practical issues are raised; such as how social innovation could be embedded in education? Which educational philosophy could best meet its objectives; and which pedagogical principles can afford potential for best serving its mission?

The investigation of these issues is part of the NEMESIS project¹ (which stands for “Novel Educational Model Enabling Social Innovation Skills”) funded by the European Union’s Horizon 2020 research and innovation programme. The NEMESIS project presents the first consolidated attempt for designing an educational model for embedding Social Innovation in Education as a means of responding to the ever-increasing needs for educating and empowering the younger generation to drive positive social change. The results discussed in this paper present the first attempts of the project partners to conceptualise Social Innovation Education and design a flexible and non-prescriptive learning framework to facilitate its application in primary and secondary schools. As the project is ongoing, this framework is currently being tested and evaluated by schools around Europe. The new insights that will be generated by the pilots will be used to refine and update the Social Innovation learning framework.

2. Research methodology

To develop the first version of the Social Innovation learning framework a rigorous approach was undertaken by combining theoretical research with empirical insights. Although social innovation has been studied from different spectrums and angles, a consolidated literature on social innovation in education does not exist and there is no clear definition explaining what SIE is. Therefore, our initial attempts were focused on developing a clear understanding and conceptualising the essence of SIE. To this end, we first focused on investigating the links between social innovation and education. We undertook a literature review whereby we encapsulated the various definitions given to social innovation highlighting different aspects of the term, so as to be able to relate them to the field of education. Hence, in our attempt to find some definitions that fit the goals of education, we focused on those highlighting the transformative power of social innovation to foster society’s capacity to drive social change.

In parallel, we turned our attention to a stream of work that implicitly touches upon SIE by exploring practices of civic/youth activism (i.e. young people’s involvement in attempts to achieve change within their communities) in educational contexts (Kirschner, 2007). By building upon this research, we supplemented our theoretical understanding on SIE with some practical insights gathered through in-depth interviews with social innovation practitioners around Europe. Findings were further supplemented by the results of an online survey whereby 83 educators from Greece, UK, Spain, Portugal and France provided their responses and insights on how they conceptualise SIE with emphasis on its mission, the expected learning outcomes and the pedagogical principles that should inform its practical application.

¹ www.nemesis-edu.eu
This research resulted to a working definition on SIE that guided our next research activities focusing on defining: i) the underlying educational philosophy of SIE and the principles guiding its design, ii) the learning outcomes and competences linked to SIE. To define the educational philosophy of SIE, we reviewed and analysed relevant learning theories and educational approaches, while we also mapped and analysed existing educational programmes and interviewed practitioners of these programmes which encompass relevant practices to SIE so as to elicit more in-depth information on the different learning methods utilised. To define the competences that are necessary for positive social change and can be cultivated through SIE, we explored relevant competence frameworks such as the Entrepreneurship Competence Framework (Bacigalupo, 2016), the Changemakers attributes (Rivers et al., 2015), the OECD learning framework 2030 (OECD, 2018), the Democratic Culture Competence Framework (Barrett, 2016) as well as stakeholders’ opinions through interviews.

The results synthesised the first version of the Social Innovation learning framework which was offered to schools as a non-prescriptive supporting document to facilitate teachers to create their own approaches towards the application of SIE. The empirical evidence that will be gathered by the end of the project will be used to update, refine and validate the Social Innovation Learning Framework.

3. Conceptualising Social Innovation Education

3.1. Linking Social Innovation to Education

Although social innovation has gained momentum in the last decades, SIE is a new concept and has been relatively under-investigated. Therefore, to define what SIE entails, we focused our initial attempts on understanding the conceptual linkages between Social Innovation and Education.

Exploring the concept of Social Innovation, there is a large number of different definitions in circulation, which usually lead to confusion on how people perceive it. Its multi-disciplinary nature and the fact that it cuts across different sectors, has undoubtedly contributed to the diversity and variety of its meanings and uses since many of those writing about social innovation tend to do so with a specific sector in mind (The Young Foundation, 2012). Particularly, social innovation happens in all sectors of the economy (voluntary, social, public and private), whereby social innovators can come from many different backgrounds, including civil society, business, government, trade unions, informal citizen networks, social movements and cooperatives.

According to an extensive review of the various social innovation definitions that have been formulated (Caulier-Grice et al., 2012), it is evident that social innovation has been used to describe:

- **the development of new products, services and programmes**, by referring to public sector innovation and the provision of public services by social enterprises and civil society organisations.
- **the process of social change and the transformation of society**, by emphasising the role of civil society and social economy in social change.
- **a model of organisational management**, which relates to changes in human, institutional and social capitals leading to organisational efficiency and improved competitiveness.
• **social entrepreneurship and social enterprise**: social innovation is usually used to describe social entrepreneurship and social enterprises, although it is much broader than both terms.

• **a model of governance, empowerment and capacity building**, focusing on the competences and assets developed through the interaction among various actors.

From the large variety of definitions that exist, most of the time, social innovation is generally seen as the process of finding novel and imaginative solutions to solve social problems.

According to Mulgan (2007, p.8) social innovation is about “innovative activities and services that are motivated by the goal of meeting a social need and that are predominantly developed and diffused through organisations whose primary purposes are social”.

An output-oriented definition that is commonly used sees social innovation as “a novel solution to a social problem that is more effective, efficient, sustainable, or just than existing solutions and for which the value created accrues primarily to society as a whole rather than private individuals. A social innovation can be a product, a production process, or technology, but it can also be a principle, an idea, a piece of legislation, a social movement, an intervention, or some combination of them” (Deiglmeier et al., 2008, p.39).

A similar but more universal definition that does not only focus on the outputs of social innovation but also on its transformative and empowering effect on the creation of new social relations and dynamics has been developed by the Young Foundation (2012), according to which “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 et al., 2012, p.18).

This definition emphasizes the potential of social innovation to **empower people, build capabilities and create new relations and collaborations**, highlighting its transformative power to foster society’s capacity to drive social change.

The creation of new relations can happen in a number of ways – a new form of governance, a better form of collaborative action, or entirely new relationships for example, by enabling consumers to become producers or students to become teachers. **These new roles and relations often enhance the capabilities of people to better satisfy their needs over the long term.** The focus on capabilities **highlights a sense of agency and participation** where people are seen as active, creative, and able to act on behalf of their aspirations. In this sense, the capabilities approach is based on the notion that people are **both individually and collectively in control of their own lives and the source of their own solutions** (Caulier-Grice et al., 2012).

Considering further the aspect of social innovation to improve and increase people’s capacities to act, it is evident that there are significant links between the social innovation and the education world since both encompass similar goals: “Education is a means to empower children and adults alike to become active participants in the transformation of their societies” (UNESCO, 2017).

To elaborate further on this aspect of social innovation, we want to highlight a critical definition according to which: "social Innovation as a concept and a practice holds a great **socio-political transformative potential** and warns against reducing its
meaning to mere social problem mending as a response to state and market insufficiencies” (Moulaert et al., 2017, p.8).

By embracing this definition, we consider social innovation as “a combination of at least 3 dimensions: collective satisfaction of unsatisfied or insufficiently met human needs, building more cohesive social relations and, through socio-political bottom-linked empowerment, work toward more democratic societies and communities (also called the socio-political transformation dimension of social innovation)” (Moulaert et al., 2017, p.8). “The two crucial common elements in social innovation are new social relationships (process related) and new social value creation (outcome related). The changes in social relationships that emerge as “process elements” are an important part of the innovation process and may even be the most important part in some cases” (Haxeltine et al., 2013, p.3).

Similarly, Neumeier (2012) defines social innovation as the transformation of attitudes, behaviours and perceptions of people which leads to new ways of collaborative action. Nicholls and Murdock (2012) also focus on the processes of social change in social relations highlighting a process of re-contextualisation within socially (re)constructed norms and social values such as the public good, justice and equity. They also argue that social innovation is never neutral but always politically and socially constructed’ (Caulier-Grice et al., 2012).

All the above can be considered as a set of concepts, processes and outcomes that seem reasonably well aligned with goals and values espoused by education systems across Europe. Therefore, in our attempt to define SIE and develop a supportive learning framework we have focused on the empowering and transformative power of social innovation to improve the individual and collective capabilities of people to build new relations and produce collective outcomes and social value.

### 3.2. Towards a working definition on SIE

Although social innovation has been studied from different spectrums and angles, a consolidated literature on social innovation in education does not exist and there is no clear definition explaining what SIE is. The only published study that explicitly focuses on social innovation education in higher education has been developed by the University of Northampton, which was recently recognised as an AshokaU Changemaker Campus. The University of Northampton developed this study in order to design a theoretical framework for embedding SIE in academic programmes. According to this study, SIE is defined 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.” (Rivers et al., 2015, p.388).

Summarising the main principles that guided the development of this definition, it is worth mentioning that SIE is conceptualised by the authors of this study as a systemic and sustainable approach to improving society through positive social change; it aims to develop qualities for positive changemaking; it subsumes the development of employability skills and 21st century skills, while working towards a more sophisticated set of competences; it promotes learning on a more critical and socially impactful plane than traditional undergraduate education. The definition of SIE developed by the University of Northampton mainly focuses on the outcomes of social innovation (“change the world for the better”) and the related competences needed (i.e.
changemaking, employability and 21st century skills), while not touching upon the empowering aspects of social innovation to increase civic engagement and accelerate collective outcomes, which is a core element in our understanding and perception of SIE, as presented earlier.

Consequently, we turned our attention to a stream of relevant literature that implicitly touches upon SIE by connecting civic/youth activism, participation and engagement in educational contexts. Considering SIE as a subset of Youth Activism, we build on an important body of research exploring young people’s involvement in attempts to achieve change within their communities (whether local, national or global) (Davies et al., 2014). Particularly, in his interrogation of youth activism as a context for learning and development, Kirschner (2007) sets the scene by making a clear distinction between “community service programs where youths clean parks, tutor children, and serve food to the homeless and youth activism groups where youths seek to influence public policy and change institutional practices, often with a social justice focus” (Kahne and Westheimer, 1996). In youth activism, a critical form of civic engagement is created in which young people are encouraged to question the status quo and envision better alternatives for themselves and their peers (Watts and Guessous, 2006).

Having in mind the dynamics of social innovation for the socio-political empowerment and activation of people, (with the term “political” going beyond constitutional politics by including broader activities associated with citizenship such as social responsibility and community involvement) we regarded the youth activism literature as a very relevant and valid framework to further build upon towards the definition of SIE that informs the design of the overall Social Innovation learning framework.

In line with these findings were also Social Innovators and educators’ perspectives around what SIE could entail. Exploring the insights gathered through interviews and an online survey, SIE is perceived as an educational approach that prepares children to make the world a better place for themselves and others through collaborative education. The conceptualisation of SIE by teachers and social innovators appeared inclined towards learning theories related to collaborative learning and a social reconstructionist view of the world. Social reconstructionism is a philosophy that emphasizes addressing social issues through education to create a better society and worldwide democracy. Social Reconstructionism focuses on the potential of schools and educators who, with the help of other cultural agencies, could become agents of reconstruction and reform in society. In this light, reconstructionist educators focus on a curriculum that highlights social reform as the aim of education. It is centred around students experience and enables them to take action on real social problems thus fostering community-based learning and bringing the real world into the classroom.

As a result of the extensive research detailed above, we developed the following working definition:

SIE is 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’ competences 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.
3.3. Defining competences related to SIE

The attempt to define a set of competences related to social innovation was guided by having in mind the transformative, collaborative and empowering aspects of SIE according to our working definition. Therefore, attention was paid to identifying both individual and collective competences that can empower people to take collective action for societal betterment and positive change. To this end, we searched for inspiration from existing competence frameworks that encompass aspects relevant to SIE.

By exploring European and international competence frameworks we found that the majority of them have been developed by explicitly and excessively focusing on the development of skills for employable citizens. The 21st century skills framework (P21), the European reference framework of key competences for lifelong learning (EC, 2018), the European Entrepreneurship Competence framework (Bacigalupo et al., 2016), are among those frameworks that provide valuable insights for the promotion of employability competences which are important for future employees, entrepreneurs or intrapreneurs. However, as the focus of SIE is not only to prepare students for the world of work but also to empower them to drive positive change, we focused on four specific competence frameworks that bear both similarities and differences among them and to SIE but complement each other regarding what SIE seeks to achieve.

Starting with the Entrepreneurship Competence Framework (EntreComp), it should be noted that it was developed to be utilised as a reference point for any initiative aiming to introduce entrepreneurial learning. EntreComp defines entrepreneurship as a multidimensional competence that applies to various spheres of life: from personal development, to participation in the job market and society at large and also to starting up ventures of different types such as commercial, environmental, digital and also social enterprises. “Entrepreneurship as a competence relates to the capacity of people to act upon opportunities and ideas to create value for others. The value created can be social, cultural, or financial” (Bacigalupo et al., 2016, p.10).

Although most of the competences defined by EntreComp seem well aligned with SIE (i.e. creativity, vision, ethical thinking etc.) this framework has a clear focus on personal development and individual attributes while also has a more economic orientation related to employability and growth. Consequently, this led us to search for additional inspiration in alternative competence frameworks paying more attention to collective outcomes and values.

An additional relevant framework is the Changemakers Attributes developed by the Northampton University by building on AshokaU’s “unifying principles for changemaking” by suggesting a set of 14 changemakers attributes that include self-confidence, perseverance, empathy, innovation and creativity, problem solving etc. Although there is a significant overlap with other competence frameworks such as EntreComp, the 21st century skills, and the employability skills framework, the 14 changemaking attributes present a stronger orientation towards a more socially impactful level by including key skills and values such as empathy, critical reflection, civic responsibility which have a central position within our conceptualisation of SIE and therefore provide a useful source of inspiration. However, both EntreComp and the Changemakers attributes only examine individual capabilities and not collective capabilities which is a key element in SIE.

Another notable inspiration for the social innovation competences was taken by OECD Learning Framework 2030 (OECD, 2018). Even though still in progress, this framework gives a clear idea of how competences will look in the years to come. It highlights that
what it is needed is not only to grow individuals into becoming active in the world of work but empower individuals to become proactive, engaging and responsible members of society capable of working towards a more sustainable future. In this respect, three main competency categories have been defined, the so called “Transformative Competences” which may be complex on the one hand, but on the other, they are intricately inter-related and all together address the growing need for young people to be innovative, responsible and aware. These fall under three categories: a) Creating new value; b) Reconciling tensions and dilemmas; c) Taking responsibility.

The transformative aspect of this framework is what made us embrace and take further inspiration from it. We see clear areas of alignment between this and SIE since both are looking into creating value and taking responsible action for being able to engage with the world and make responsible decisions for a more sustainable and democratic future. But again, a key differentiator is the focus of SIE on collective competences which is absent from the OECD learning framework focusing mainly on individual competences to engage with the world.

Finally, an alternative framework that pays more attention to collective outcomes and values is the competence framework for Democratic Culture (Barrett, 2016) developed by the Council of Europe (2016) which defines the competences which need to be acquired by learners if they are to participate effectively in a culture of democracy and live peacefully together with others in culturally diverse democratic societies. According to this framework, “An education system which equips people with such competences empowers them, endowing them with the capacities which they need to become active participants in democratic processes, in intercultural dialogue and in society more generally. It also endows them with the ability to function as autonomous social agents capable of choosing and pursuing their own goals in life” (Barrett, 2016, p.16).

The set of competences defined by the Council of Europe constituted an inspiring model for SIE as it brings values to the forefront and stresses their normative prescriptive quality in the sense that values are essential to frame the knowledge, skills and attitudes. As the specific competence framework states “without a specification of the particular values that underpin these competences, they would not be democratic competences but would instead be more general political competences which could be used in the service of many other kinds of political order, including anti-democratic orders”. “For example, one could be a responsible, self-efficacious and politically well-informed citizen within a totalitarian dictatorship if a different set of values were to be employed as the foundation for one’s judgments, decisions and actions” (Barrett, 2016, p.36).

The same principle applies in learning. When we are aiming for social change, learning competences need to be integrated with values. When students develop critical thinking, the skills can be used in a wide spectrum of learning activities however; when this skill is not accompanied with the “right” values it will not contribute to positive social change. In this respect, values are also essential in SI. They are actually an intrinsic part of social innovation. Values shape the underpinning beliefs and mindset of social innovators that affect their decisions, activities and generally their approach to the world. For example, without specific values, such as valuing cultural diversity, a social innovator would not be able to work effectively across sectors and contexts and developing new partnerships with people from diverse backgrounds no matter how good collaboration and communication skills they might have.
The framework for democratic competences provided valuable inspiration to the conceptualisation and design of the social innovation competences presented below. Particularly, we embraced the values defined by the Council of Europe and highlight their importance for the characterisation of the social innovation competences. A final remark includes that although the framework for democratic competences is definitely more social in its orientation, it still understates the development of collective competences which are at the core of SIE.

By building upon these four competence frameworks while moving beyond them by combining different aspects that best reflect the SIE definition and by stressing the collective competences (which are less examined by the other frameworks), we concluded to a set of social innovation competences that can be summarised under three interlinked categories:

Competences which are important for:
- identifying opportunities for social and collective value creation (such as empathy and responsible and critical thinking).
- developing collaborations and building meaningful relations (such as collective and creative problem solving, embracing diversity).
- taking action and achieving collective outcomes for the benefit of society (such as collaborative planning and democratic decision making, collective efficacy).

<table>
<thead>
<tr>
<th>Social innovation competences</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Vision for a better world</td>
<td>Imagine a better and fairer world</td>
</tr>
<tr>
<td>2. Responsible and critical thinking</td>
<td>Spot the good and bad points so you can improve something responsibly</td>
</tr>
<tr>
<td>3. Empathy</td>
<td>Understand and respond to the feelings of others to build something better</td>
</tr>
<tr>
<td>4. Self-efficacy</td>
<td>Believe in yourself. Identify and assess your strengths and weaknesses. Value the opinions of others</td>
</tr>
<tr>
<td>5. Collective and creative problem solving</td>
<td>Create, as a group, ideas that trigger social change</td>
</tr>
<tr>
<td>6. Embracing diversity</td>
<td>Work with lots of different people for a positive outcome</td>
</tr>
<tr>
<td>7. Collective efficacy</td>
<td>Help others to achieve their goals</td>
</tr>
<tr>
<td>8. Social resilience</td>
<td>Persevere and stay focused on your vision despite setbacks or failures</td>
</tr>
<tr>
<td>9. Digital social innovation</td>
<td>Use digital technologies for social innovation</td>
</tr>
<tr>
<td>10. Take the leap for value creation</td>
<td>Act upon your vision to help others</td>
</tr>
<tr>
<td>11. Using resources well</td>
<td>Coordinate people and use resources to help achieve your goal</td>
</tr>
<tr>
<td>12. Social communication</td>
<td>Effectively communicate and interact with others to make positive and sustainable (long lasting) relationships</td>
</tr>
<tr>
<td>13. Reflective learning</td>
<td>Step back and reflect on / analyse what you have achieved in order to learn and improve</td>
</tr>
<tr>
<td>14. Collaborative planning and democratic decision making</td>
<td>Democratically (as a group) decide upon your future actions and shared vision</td>
</tr>
</tbody>
</table>
These competences combined, according to SIE, drive social change, transform lives and activate peoples’ mind set for societal betterment; it is what enables them to actively participate in creating a better version of themselves, of civic life, of democracy and society at large. At this point, it is important to emphasize that these competences would never be relevant to social innovation, if they were not underpinned by key values that shape social innovators mindsets and motivate and guide their actions. According to the social innovators interviewed these include values like social sensitivity which is important for spotting opportunities for social value creation and solving problems, patience, altruism and integrity to keep you going and creating social value for the benefit of your society, fairness and respect of yourself and others, generosity, mutuality and trust towards your team and peers, courage to face difficulties, persistency and an open mind.

Concluding, given that education is not solely about preparing young people for the world of work, we regard the social innovation competences as equally important for enabling young people to become socially proactive, empowered, responsible and engaged citizens and thus can collectively contribute to and benefit from an inclusive and sustainable future.

3.4. The underlying educational philosophy of SIE

The working definition and set of competences presented in the previous sections provide an overview of how we conceptualise the emergent field of SIE. They also offer a good basis for further elaborating the underlying educational philosophy of SIE which presents its essence and enables it to differentiate from other educational approaches.

That said, looking at the SIE definition it is apparent that it concentrates on three key outcomes; namely: i) **empowerment**, ii) **socio-political activation** and iii) **competence development** leading to a more democratic and sustainable society. Elaborating further on these three outcomes:

- **Empowerment** in the framework of SIE is conceptualised as the process of engaging students as partners to make decisions and implement changes in both their school (i.e. in their learning) and their community (i.e. bring positive social change). Therefore, to empower students SIE focuses on engaging them as active learners and co-creators of their learning pathways and future lives.
- **Socio-political activation to drive social change** is related to the concept of democratic citizenship with emphasis on its critical and transformational effect where the aim is to enable students not just to participate in society but be capable of critically engaging with and driving positive social change.
- **Competences** defined by SIE are related to a set of knowledge, skills, attitudes and values that enable people to identify opportunities for social value creation, to form collaborations and social relations and to take action both individually and collectively for a more democratic and sustainable society.

On this basis, we conceptualise SIE as a multidimensional and interdisciplinary educational approach that shares principles from various learning theories which are thought to foster the empowerment, socio-political activation, and consequently the development of social innovation competences of students. Particularly our conceptualisation of SIE has been highly influenced by the youth activism literature which explores the initiatives of young students to implement changes in their schools (Kirshner, 2007; Davies et al., 2014). Additionally, influence has also come from
enterprise education paradigms aiming at fostering entrepreneurial behaviours, innovative and change-making mindsets.

That said, a combination of elements from a variety of educational philosophies (i.e. youth activism, enterprise education) has offered the foundational layer of SIE which aspires to:

- combine action with activism,
- personal development with collective efficacy,
- entrepreneurial mindsets with democratic values and
- individual competences with collective competences

so as to prepare and empower young people to cooperate with each other instead of organising them to compete against each other, towards collectively achieving common goals and drive positive change for a more democratic and sustainable society.

In more practical words, SIE reflects the idea that involving students in an intrinsically motivated learning process whereby they collectively create, implement and deliver real life social innovations to address a community/school concern, influence change and create social value, can lead to student’s empowerment, socio-political activation and development of social innovation competences.

In our attempt to understand how these conceptual learning conditions can be established, we were guided by three specific principles that have been used for designing the structural elements of SIE and enabling its real-life pilot application in schools. These design principles are: i) student at the centre; ii) co-creation and ii) transformative social action, which are strongly related to the empowerment and socio-political activation of students assumed to lead to the cultivation of social innovation competences. In more detail:

**Principle 1: Student at the centre**

At its core, SIE reflects a student-centered approach to learning that employs teaching and learning methods that shift the focus of instruction from the teacher to the student (Jones, 2007). This principle transforms the dynamics of knowledge production to enable students to be the active and self-determined producers of their own learning and competence development, whether individually or collectively. It builds on the constructivist learning theories (Piaget, 1980) considering the learner as an active agent in the process of knowledge construction and acquisition. On this basis, student-centred learning puts students' interests first, highlighting that student voice is central to the learning experience; meaning that students choose what and how they will learn. The ultimate function and purpose behind a student-centered approach to learning is to build autonomous learners. Suitable theoretical underpinnings of this approach can be found in self-determination theory (hereafter SDT) which provides a theoretical framework for applying appropriate strategies in the classroom that support student empowerment, engagement and motivation (Litalien et al., 2017; Reeve, 2012). SDT views children as active participants in their environment who seek to fulfil three basic needs: autonomy, belonging and competence (Deci and Ryan, 2002). The facilitation and enhancement of these processes hold the power eventually leading to student’s empowerment, which is what SIE strives to achieve.

According to McQuillan (2005) students’ empowerment can be seen in three dimensions: academic, social and political. The academic empowerment includes students’ ability to succeed through participation in instruction and setting their own learning goals. This is closely linked to the “student at the center” principle described here, which in practical terms gives learners the opportunity to define their own
problem-solving goals and to create an approach to address them. The social empowerment dimension involves students feeling safe to speak with teachers and knowing that all voices are respected which is directly linked to the next design principle of SIE (co-creation). The last dimension is the political empowerment which involves students having influence within their school and community, either formally or informally which is linked to the third principle of SIE (transformative social action). Principles 2 and 3 are elaborated below.

**Principle 2: Co-creation**
In education, co-creation is conceptualised as a collaborative, reciprocal process through which students together with teachers and other stakeholders have the opportunity to contribute equally to curricular or pedagogical conceptualization, decision-making, implementation, investigation, or analysis (Bovill et al., 2015). As a concept, co-creation is strongly related to students’ commitment, engagement and participation (Hart, 2008).

In SIE, co-creation indicates a process where traditional hierarchical relations change and students become co-creators of their learning experience by collaborating with multiple adults, ranging from teachers, parents, community actors, professionals etc. on a new basis of collective problem-solving towards influencing change on issues that matter to them either inside or outside the school community.

Assuming thus co-creation as a process of intergenerational interactions, equal participation, mutual decision making and collaborative problem solving towards a common goal (Jones and Perkins, 2004), we define co-creation as both a process and a practice that can empower students by making their voice heard, valued and most importantly acted upon. On top of this, the type and quality of the co-creation relationships that are formed and the interactions that take place between young learners and adults, play a significant role in students’ behavioural, cognitive, emotional and agentic engagement (Archambault et al., 2009; Fredricks et al., 2004; Jimerson et al., 2003; Reeve, 2012). Particularly, some studies that have investigated student voice initiatives have shown that such initiatives include collaboration between young people and adults to address problems in schools (Mitra and Serriere, 2012). Impact on students of such initiatives is mainly seen in the development of agency, sense of belonging, competence, discourse and civic efficacy (Mitra and Serriere, 2012). In this respect, when students feel that they are being valued and respected by adults, they start developing a sense of ownership and attachment to their school, which has the capacity to increase student engagement. This is linked to the second dimension of empowerment defined by McQuillan (2005) as social empowerment. This growing sense of being heard and being valued also relates to a self-empowerment that they have the right to question authority and to push for change. This creates a direct link to the work of Reeve (2012) on agentic engagement which is closely related to the concept of building autonomous and independent learners and it is defined (Reeve, 2012) as student’s intentional, proactive, and constructive contribution into the flow of the instruction they receive. In this sense, the concept of agentic engagement appears to have theoretical congruence with the tradition of self-determination theory and SIE’s focus on autonomy and empowerment as another important feature of well-versed students in the spectrum of social innovation competences. Furthermore, agentic engagement refers to the process whereby students proactively attempt to create, direct, enhance, and personalize the conditions and circumstances of their learning (Reeve, 2012). For example, students who are agentically engaged offer input, make suggestions, express preferences, offer help and support to others, seek clarifications, ask for a say in how problems should be solved, and may contribute in any other way that shows confidence and empowerment. In other words, agentic engagement, or agency in an educational
context, is closely linked to the potential of students to influence a given situation, which creates a conceptual link to the third principle of SIE presented below.

**Principle 3: Transformative social action**

In the field of education, learning through social action is proved to have a positive impact on students’ attitudes towards school, themselves and others (National Youth Leadership Council, 2010) As such, in the last years, there has been an increase of citizenship education curricula offering opportunities to students to participate in social action assuming it would lead to more engagement and future civic engagement. Citizenship education as a wider concept has been extensively studied from different angles and perspectives (Wood et al., 2013). However, citizenship education is still not consistently understood and definitions around the forms that citizenship education can take (i.e. fundraising; volunteering, service learning etc.) vary. According to Woods et al. (2018), the outcomes of citizenship education fall under 3 different categories: i) ‘personally responsible’ citizens who for instance obey the law, pay taxes etc. ii) ‘participatory citizens’ who are active community members who volunteer and take on leadership and initiative within established systems and iii) ‘justice-oriented’ citizens who are concerned about social justice, hold a desire to improve society and question structural factors that perpetuate injustices.

The concept of a “justice-oriented” citizen (Westheimer and Kahne, 2004) is well aligned with the definition of SIE which is focused on the socio-political activation of learners to drive social change for more democratic societies. Therefore, SIE builds on this principle which implies that education that aims to nurture “justice oriented” citizens should be focused on equipping students with the ability to critically analyse society and address social issues and injustices (Woods et al., 2018). This is in line also with the critical learning theory which advocates that the purpose of education should be to develop a more socially just world and the means to achieve this through critical examination and transformation, unravelling and changing unfair power relations and power mechanisms that dominate learning and other human activity (Freire, 1970).

Elaborating further, this reflects the idea that providing students with opportunities to practice more active forms of citizenship by for instance acting directly on civic and political issues in school can foster students’ commitment to future civic participation (Davies et al., 2013; Kahne and Sporte, 2008). In the same line of reasoning is also the work on youth activism that guided from the very beginning the conceptualisation of SIE by making a clear distinction between “community service programs and youth activism groups seeking to influence change often with a social justice focus” (Kirschner, 2007, p.368). In youth activism, a critical form of civic engagement is created in which young people are encouraged to question the status quo and envision better alternatives for themselves and their peers (Watts and Guessous, 2006). In his study, Kirshner (2007) highlights four qualities of youth activism as a learning environment: a) collective problem solving, b) youth–adult interaction, c) exploration of alternative frames for identity, and d) bridges to academic and civic institutions. In this way, youth activism shifts the focus from individual to collective action; embodies cross-generational interactions that provide an important venue for students to develop relationships with adults in the context of task-oriented activities, exposes students to socio-political viewpoints that enables them to see themselves as active producers of society thus fostering a belief in the power of ordinary people to accomplish social change and finally connects youth to civic institutions and engage them in authentic learning experiences that demonstrate the relevance of academic skills to everyday life (Kirshner, 2007). On this basis and by building upon the principle of transformative social action, SIE empowers students to advocate change with a strong collective focus whereby students can see how issues that are usually regarded as a private responsibility can be reframed as a collective
responsibility and addressed through collaborative problem solving fostering thus feelings of agency, belonging, competency and collective efficacy.

Concluding, through the explanation of the three design principles of SIE presented in this section, it can be seen that they reflect some more specific structural aspects of SIE, which can be summarized as i) extended student's voice, ii) cross-generational relationships, iii) collective problem solving and iv) transformative action through advocacy. These four structural aspects, that came forward through the analysis of the three design principles, offer the basis for designing a SIE intervention no matter its context or the form.

4. Conclusions

This paper presented, in a condensed form, the initial theoretical endeavor of the Horizon 2020 EU funded NEMESIS project to develop a non-prescriptive learning framework for embedding social innovation in primary and secondary education.

The scarce research implicitly addressing social innovation in education, focused our initial attempts towards creating a robust theoretical basis for research within the project which started by creating the conceptual linkages between education and social innovation. Through a literature review we explored the variety of different approaches to the concept of social innovation and through interviews with social innovators and teachers we tried to create a common conceptualization towards the potential manifestation of SIE in practice. To supplement our understanding of SIE we also explored of the current research that implicitly addressing SIE. Particularly, we build upon the youth activism literature and studies exploring young people's involvement in attempts to achieve change within their communities which enabled us to develop a deeper understanding and more structured approach towards the conceptualization of SIE.

This work resulted to a working definition according to which: “Social Innovation Education is a collaborative and collective learning process for the empowerment and socio/political activation of students to drive social change no matter what their professional pathways. It builds their competences 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”.

Based on this definition and by exploring relevant competence frameworks and stakeholders’ opinions we developed a set of competences related to social innovation. In contrast to existing competence frameworks, emphasis was paid on both individual and collective competences and underpinning values essential for driving social change, transforming lives and activating people for societal betterment.

Our understanding on SIE was enriched by elaborating further on its underlying educational philosophy and the main principles that inform its design and practical application by reviewing relevant learning theories and educational approaches.

Against this background, we set the basis for designing a Social Innovation learning framework. Its first version, briefly described in this paper, offers the starting point for further empirical research, which is currently in progress as part of the NEMESIS project. Particularly, from the beginning of academic year 2019, this framework was offered to teachers from ten primary and secondary schools from Greece, UK, France, Portugal and Spain who experiment with SIE through a multitude of formats and approaches but with a common underlying educational philosophy connecting co-creation, student led approaches and transformative social action. The empirical data
that will be gathered after the finalization of the pilots will be further analysed against the theories that informed the design of the learning framework providing evidence for updating, refining and validating it.

**Acknowledgments:** We sincerely thank all partners of the NEMESIS consortium for the support and discussions that helped to develop this publication. This project has received funding from the European Union’s Horizon2020 research and innovation programme under grant agreement nr 770348. Any opinions, findings, and conclusions or recommendations expressed in this paper are those of the author(s) and do not necessarily reflect the views of the European Union.
Bibliography


Moulaert, F., Mehmood, A., MacCallum, D., & Leubolt, B. (2017) Social innovation as a trigger for transformations-the role of research. Available at:

National Youth Leadership Council (2010) Service Learning and Academic Achievement Research Summary, Generator School Network.


UNESCO (2015) *Rethinking Education: Towards a global common good?* Available at: https://unesdoc.unesco.org/ark:/48223/pf0000232555


